



UNG-CH HEALTH SCIENCES LIBRARY

H00111220 7

**The Library**  
of the  
**Division of Health Affairs**  
**University of North Carolina**



**This book was presented**  
by  
North Carolina State Board  
of Health

THE UNIVERSITY OF CHICAGO





Thirty-Seventh Biennial Report  
OF THE  
NORTH CAROLINA  
STATE BOARD OF HEALTH



July 1, 1956-June 30, 1958



# MEMBERS OF THE STATE BOARD OF HEALTH

## Appointed by the Governor

H. C. LUTZ, Ph.G.

Appointed 1951

Term expires 1959

MRS. J. E. LATTI

Appointed 1953

Term expires 1961

JOHN P. HENDERSON, JR., M.D.

Appointed 1954

Term expires 1959

LENOX D. BAKER, M.D.

Appointed 1956

Term expires 1961

Z. L. EDWARDS, D.D.S.

Appointed 1957

Term expires 1961

---

## Elected by the Medical Society of the State of North Carolina

JOHN R. BENDER, M.D., *Vice-President*

Elected 1949

Term expires 1961

CHARLES R. BUGG, M. D., *President*

Elected 1957

Term expires 1961

\*ROGER W. MORRISON, M.D.

Elected 1957

Term expires 1959

\*\*EARL W. BRIAN, M.D.

Elected 1958

Term expires 1959

---

## EXECUTIVE COMMITTEE

Charles R. Bugg, M.D., *President*

John R. Bender, M.D., *Vice-President*

Z. L. Edwards, D.D.S.

J. W. R. Norton, M.D., *Secretary*

---

## EXECUTIVE STAFF AS OF JUNE 30, 1958

J. W. R. NORTON, M.D., M.P.H., *Secretary and State Health Director*

JOHN H. HAMILTON, M.D., *Assistant State Health Director and Director of Laboratory Division*

ERNEST A. BRANCH, D.D.S., *Director Oral Hygiene Division*

J. M. JARRETT, B.S., *Director Sanitary Engineering Division*

A. H. ELLIOT, M.D., *Director Personal Health Division*

FRED T. FOARD, M.D., *Director Epidemiology Division*

ROBERT D. HIGGINS, M.D., *Director Local Health Division*

E. C. HUBBARD, B.S., M.P.H., *Director Water Pollution Control Division*

BEN EATON, JR., *Director Administrative Services*

---

\* Dr. Morrison elected to fill unexpired term of Dr. Crump.

\*\* Dr. Brian elected to fill unexpired term of Dr. Dixon, deceased May 7, 1958.

# STATE BOARD OF HEALTH

5 members appointed by Governor (G) — 4 members elected by State Medical Society (S) — 4 years terms  
(Year given indicates expiration of present term)

## BOARD MEMBERS

JOHN R. BENDER, M.D., (S), Vice-Pres., 1961	CHARLES R. RUGG, M.D. (S) President, 1961, Raleigh	JOHN P. HENDERSON, JR., M.D., (G), 1959	Sneads Ferry
LENOX D. BAKER, M.D., (G), 1961	Winston-Salem	ROGER W. MORRISON, M.D. (S), 1959	Ashville
H. C. LUTZ, (G), 1959	Durham	Z. L. EDWARDS, D.D.S., (G), 1961	Washington
MRS. J. E. LATTA, (G), 1961	Hickory	EARL W. BRIAN, M.D., (S), 1959	Raleigh
	Hillsboro, Rt. 1		
J. W. R. NORTON, M.D., STATE HEALTH DIRECTOR and SECRETARY-TREASURER			
JOHN H. HAMILTON, M.D., ASSISTANT STATE HEALTH DIRECTOR			

## EPIDEMIOLOGY DIVISION

FRED T. FOARD, M.D.  
Accident Prevention (Home—Farm)  
Chronic Diseases—Radiation Section  
Communicable Disease Section  
Occupational Health Section  
Public Health Statistics Section  
Tuberculosis Section  
Venereal Disease Section  
Veterinary Public Health Section

## ORAL HYGIENE DIVISION

E. A. BRANCH, D.D.S.  
Consultation  
Correction  
Education  
Lectures  
Visual  
Prevention

## WATER POLLUTION CONTROL DIVISION

E. C. HUBBARD, B.S., M.P.H.  
Pollution Control Section  
Stream Study Section

## CENTRAL ADMINISTRATION

BEN EATON, JR., LL.B.,  
Director Administrative Services  
Budgets  
Central Files  
Film Library  
Personnel  
Printing—Mailing  
Public Health Library  
Public Relations

## LOCAL HEALTH DIVISION

ROBERT D. HIGGINS, M.D.  
Administrative Section  
Health Education Section  
Mental Health Section  
Public Health Nursing Section  
School Health Section (School Health Coordinating Service—Jointly with Ed. Dept.)

## PERSONAL HEALTH DIVISION

A. H. ELLIOTT, M.D.  
Cancer Section  
Crippled Children Section  
Heart Disease Section  
Maternal-Child Health Section  
Nutrition Section

## SANITARY ENGINEERING DIVISION

J. M. JARRETT, B.S.

Engineering Section  
Insect-Rodent Control Section  
Refrigerating  
Salt Marsh Mosquito Control  
Public Water Supplies  
Radiation Monitoring  
Sanitation Section  
Environmental  
Milk  
Public Eating Places  
Shellfish

## LABORATORY DIVISION

J. H. HAMILTON, M.D.

Approval of Laboratories  
Biologies  
Chemistry  
Cultures  
Cytology  
Microscopy  
Serology  
Virology  
Water

# LOCAL HEALTH DIRECTORS IN NORTH CAROLINA

N. C. State Board of Health, Local Health Division  
Raleigh, N. C.

AUGUST 1, 1958

<i>Department</i>	<i>Health Director</i>	<i>Address</i>
Alamance	Dr. W. L. Norville	Burlington
Alleghany-Ashe- Watauga	Dr. M. B. H. Michal	Boone
Anson	Dr. Warren D. Carter, Act. P.T.	Wadesboro
Avery-Yancey-Mitchell		Burnsville
Beaufort	Dr. L. E. Kling	Washington
Bertie	Dr. W. S. Cann	Windsor
Bladen	Dr. David Tingle	Elizabethtown
Brunswick	Dr. C. B. Davis	Shallotte
Buncombe	Dr. H. W. Stevens	Asheville Box 7525
Burke	Dr. G. F. Reeves	Morganton
Cabarrus	Dr. J. Roy Hege	Concord
Caldwell	Dr. William Happer	Lenoir
Carteret	Dr. Luther Fulcher, Act. P.T.	Beaufort
Catawba-Lincoln- Alexander	Dr. William H. Bandy	Hickory
Cherokee-Clay-Graham		Murphy
Cleveland	Dr. Z. P. Mitchell	Shelby
Columbus	Dr. Floyd Johnson	Whiteville
Craven	Dr. E. D. Hardin	New Bern
Cumberland	Dr. M. T. Foster	Fayetteville
Currituck-Dare	Dr. W. W. Johnston	Currituck
Davidson	Dr. J. W. Varner	Lexington
Davie-Yadkin	Dr. John L. Chesnut	Mocksville
Duplin	Dr. John F. Powers	Kenansville
Durham	Dr. O. L. Ader	Durham
Edgecombe	Dr. W. A. Browne	Tarboro
Forsyth	Dr. Fred G. Pegg	Winston-Salem
Franklin	Dr. A. J. Holton	Louisburg
Gaston	Dr. B. M. Drake	Gastonia
Granville	Dr. W. N. Thomas	Oxford
Greene	Dr. J. L. Campbell	Snow Hill
Guilford	Dr. E. H. Ellinwood	Greensboro
Halifax	Dr. Robert F. Young	Halifax
Harnett	Dr. W. B. Hunter	Lillington
Haywood	Dr. Raymond K. Butler	Waynesville
Henderson-Transyl- vania	Dr. J. D. Lutz, Act. P.T.	Hendersonville
Hertford-Gates	Dr. John R. Folger, Act. P.T.	Brevard
Hoke	Dr. James A. Fields	Winton
Hyde	Dr. A. L. O'Briant	Raeford
Iredell	Dr. W. W. Johnston	Swan Quarter
Jackson-Macon-Swain	Dr. Ernest Ward	Statesville
Johnston	Dr. H. F. Barnes	Sylva
Jones	Dr. E. S. Grady	Smithfield
Lenoir	Dr. R. J. Jones	Trenton
McDowell	Dr. R. J. Jones	Kinston
Madison	Dr. W. F. E. Loftin	Marion
	Dr. Margery J. Lord, Act. P.T.	Marshall
Martin	Dr. W. A. Browne	Williamston

Mecklenburg	Dr. M. B. Bethel	Charlotte
Montgomery	Dr. R. E. Fox	Troy
Moore	Dr. J. W. Willcox	Carthage
Nash	Dr. J. S. Chamblee	Nashville
New Hanover	Dr. C. B. Davis	Wilmington
Northampton	Dr. W. R. Parker	Jackson
Onslow	Dr. Eleanor H. Williams	Jacksonville
Orange-Person-Chat- ham-Lee-Caswell	Dr. O. David Garvin	Chapel Hill
Pamlico	Dr. L. E. Kling	Bayboro
Pasquotank-Perqui- mans-Camden- Chowan	Dr. B. B. McGuire	Elizabeth City
Pender	Dr. N. C. Wolfe, Act. P.T.	Burgaw
Pitt	Dr. Georgia V. Mills	Greenville
Randolph	Dr. H. C. Whims	Asheboro
Richmond	Dr. T. Boyce Henry, Act. P.T.	Rockingham
Robeson	Dr. E. R. Hardin	Lumberton
Rockingham	Dr. C. T. Mangum, Act. P.T.	Spray
Rowan	Dr. C. W. Armstrong	Salisbury
Rutherford-Polk	Dr. Ann B. Lane	Rutherfordton
Sampson	Dr. J. Cooper Howard, Act. P.T.	Clinton
Scotland	Dr. K. C. Moore	Laurinburg
Stanly	Dr. R. E. Fox	Albemarle
Stokes	Dr. J. S. Taylor, Act. P.T.	Danbury
Surry	Dr. R. B. C. Franklin	Mount Airy
Tyrrell-Washington	Dr. Claudius McGowan, Act. P.T.	Plymouth
Union	Dr. Clem Ham	Monroe
Vance	Dr. R. G. Currin, Act. P.T.	Henderson
Wake	Dr. Isa C. Grant	Raleigh
Warren	Dr. L. W. Kornegay, Act. P.T.	Warrenton
Wayne	Dr. Arthur S. Chesson, Jr.	Goldsboro
Wilkes	Dr. Robert R. King	Wilkesboro
Wilson	Dr. Joseph L. Campbell	Wilson
Charlotte, City of	Dr. M. B. Bethel	Charlotte
Rocky Mount, City of	Dr. J. S. Chamblee, Act. P.T.	Rocky Mount



J. W. R. NORTON, M.D., M.P.H.  
STATE HEALTH DIRECTOR  
AND  
SECRETARY-TREASURER  
JOHN H. HAMILTON, M.D.  
ASST. STATE HEALTH DIRECTOR

NORTH CAROLINA

## STATE BOARD OF HEALTH

RALEIGH

September 11, 1958

### MEMBERS

G. GRADY DIXON, M.D., PRES.	ATGEN
JOHN R. BENDER, M.D., VICE PRES.	WINSTON-SALEM
CHARLES R. BUGG, M.D.	RALEIGH
LENOX D. BAKER, M.D.	DURHAM
H. C. LUTZ, PH.G.	HICKORY
MRS. J. E. LATTA	HILLSBORO, RT. 1
JOHN P. HENDERSON, JR., M.D.	SNEADS FERRY
ROGER W. MORRISON, M.D.	ASHEVILLE
Z. L. EDWARDS, D.D.S.	WASHINGTON

The Honorable Luther H. Hodges  
Governor of North Carolina  
The State Capitol  
Raleigh, North Carolina

Dear Governor Hodges:

Pursuant to the provisions of Section 130-3, General Statutes of North Carolina, I herewith submit to you, and through you, to the General Assembly of North Carolina, the Biennial Report of the North Carolina State Board of Health for the fiscal years of July 1, 1956 - June 30, 1958.

Respectfully submitted,

*J. W. R. Norton*  
J. W. R. Norton, M. D.,

Secretary and State Health Director

n/e

## TABLE OF CONTENTS

Report of the Secretary-Treasurer, July 1, 1956-June 30, 1958 . . . . .	9
Conjoint Report, 1957 . . . . .	46
A Decade of Public Health Adjustment in North Carolina . . . . .	51
Biennial Report, July 1, 1956-June 30, 1958—Central Administration . . .	62
Local Health Division . . . . .	67
Personal Health Division . . . . .	76
Division of Epidemiology . . . . .	81
Sanitary Engineering Division . . . . .	111
Laboratory of Hygiene . . . . .	116
Report of Committee on Postmortem Medicolegal Examinations . . . . .	123
Oral Hygiene Division . . . . .	125
Division of Water Pollution Control . . . . .	129
Public Health Chronology (1952-1958) . . . . .	140



# REPORT OF THE SECRETARY-TREASURER AND STATE HEALTH DIRECTOR

July 1, 1956-June 30, 1958

Abridged report of the activities of the State  
Board of Health as recorded in the Minutes:

July 8, 1956. There was a special meeting of the North Carolina State Board of Health held Sunday, July 8, 1956, 10:00 a.m.-5:00 p.m., in the Board Room of the Cooper Memorial Health Building, with President Dixon presiding.

Dr. Norton asked for clearance on the minutes of the last meeting so that certain actions taken at that meeting might be considered final and acted upon. Dr. Lawrence suggested that since this is a special meeting for a special purpose, the approval of these minutes be postponed until the next regular meeting, and this was done.

Before going into the public health laws, Dr. Dixon explained that at Pinehurst certain members of the Board got together and studied the first Chapter to acquaint themselves with it and to get something started toward making recommendations. At that particular meeting, the attorney for the State Medical Society was present. At a meeting in Winston-Salem about a year ago, the subject came up of changing the name of the executive officer from State Health Officer to Commissioner of Health, and a resolution was passed to that effect, and setting up a State Department of Health. The medical members of the Board talked it over with the attorney for the State Medical Society, and he advised that so long as things go along as they are, with the men we have in control, it would be perfectly alright, but if sometime a different type of man got in as the head of the department of health that it would be very easy for that particular man to request appropriations and laws that would make him a czar in the department of health, if he so saw fit, and the Board would have no say-so in the policies. It would become just a figurehead. The attorney saw that as a possibility.

Dr. Lawrence commended Dr. Crump and Mr. Ligon for carrying out almost to the letter of the law the suggestions as they understood them.

The following changes were made in the proposed revision of the public health laws:

## *ARTICLE 1—General Provisions*

Section 1, (d) was rearranged to read: "Any action or proceeding commenced before this Chapter takes effect, and any right accrued, is not affected by this Chapter, but all procedures thereafter taken shall, insofar as possible, conform with the provisions of this Chapter."

Item (e) in the same Section was rearranged to read: "Whenever a power is granted to the State Board of Health, or a duty is imposed upon a public officer, the power may be assigned or the duty may be performed, unless this Chapter expressly provides otherwise, by a deputy of the officer or by a person duly authorized by the State Board of Health."

Under Section 2, "last known" was inserted before *residence* and before *principal place of business*.

*ARTICLE 2—Administration of Public Health Law*

Section 3, State Health Officer was changed to State Health "Director".

In reference to Section 1, members of the Board appointed by the Governor, Dr. Lawrence moved that in view of the custom for more than twenty-five years, or for the life of this Board it has been customary and in practice that the Governor did appoint one or more licensed physicians, that this particular specification be left as it has been presented at this time. Dr. Crump seconded, and motion carried.

Section 3—From page 2—In a discussion as to whether or not training and experience in public health should be inserted as one of the requirements for the State Health Director, Dr. Current made this statement:

The taxpayers of our State have seen fit to set up a school of public health maintained by citizens' money of the State, and men are trained there and trained in public health in a fashion similar to the way that medical men are trained in medicine, dentists in dentistry, and so on down, in the specialized field of public health. Public health has grown like other parts of our country has grown until now. It is a specialized type of health service to the citizens at large. I would not for a minute agree to a State Health Director who did not have an M.D. degree, but I would in a like manner not give my consent to one who did not have a degree in public health training, and that degree by a school that is authorized and recognized as a standard public health school. I see no point in the local health groups over our State wanting specifically trained physicians that are also trained in public health and then this Board feeling that the top level man should not have equal or better training. So my opinion is that the top flight man in public health service of our State should be an M.D. and should also have a master's degree in public health.

Dr. Dixon remarked that Dr. Norton is the first formally trained State Health Officer we have had. He agreed with Dr. Current that since county health officers have to have public health training, we should have the same thing in the top State position. If we lose a health officer, we should set a precedent that we look about among our county health officers and find the best man in the State in public health work to promote.

Dr. Current further explained that the reason he said trained by reputable schools of public health is that training in the constituted schools of public health can be done quickly, but it is not the only way that a person can become trained in public health.

Dr. Crump moved that we add to the fourth sentence of Section 3—"and shall be trained in, and shall have had experience in, Public Health work." Motion seconded by Dr. Current, and unanimously carried.

In the same Section, "traveling and hotel expenses" was changed to read "traveling and subsistence expenses."

In Section 5, the next to the last sentence was changed to read "or by a majority of the members of the State Board of Health", instead of "the executive committee."

Section 8 was changed to read: "The administrative staff of the State

Board of Health shall have and exercise such administrative duties and authority as *may be assigned by the State Board of Health.*"

Dr. Baker moved, seconded by Dr. Current, that Items 7 and 11 under Section 8, Duties of the Administrative Staff of the State Board of Health, be moved to Section 6, Powers and Duties of the State Board of Health. Motion carried.

Dr. Baker moved that Item 12 of Section 8 be moved to Section 9, Duties of the State Health Director, and be made Item 5 under that Section. Seconded by Dr. Crump. Carried.

The word "shall" was changed to "may" at the top of page 12, under Item 13.

Under Section 9, Item 4 "an employee" was changed to "a responsible employee".

#### *ARTICLE 3—Local Health Departments*

Section 4, Compensation of Board members, was changed to read "except that they may receive eight dollars per diem".

#### *ARTICLE 7—Vital Statistics*

Section 9, Burial-Transit Permit Authorizing Burial or Other Disposition of Body, Dr. Crump moved that the following be added to the first sentence: "except for those moves necessary for the body to be prepared for and removed to the funeral home". Dr. Baker seconded and the motion carried. The same insertion was made in Section 10, Fetal Deaths to be Registered.

Dr. Baker moved, seconded by Dr. Crump, that Mr. Ligon study the wording of this insertion carefully to make sure that it covers our needs. Carried.

Adjournment for lunch at 12:30 p.m.

In Section 15, "Coffins" was added to the title, to read "Sales of Coffins and Caskets Regulated".

Section 32, *Church and Other Records Filed and indexed: Fees for Transcript*, was changed to read "and it shall be the duty of the State Registrar to preserve such *parts of* record or transcript and to make a record and index thereof in such form as to facilitate the finding of any *vital* information contained therein".

#### *ARTICLE 9—Immunization*

In Section 1, "tetanus" was inserted after the word "diphtheria".

#### *ARTICLE 10—Venereal Disease*

Section 2 was changed to read "Any physician or other person *responsible for diagnoses*' and treats to "*treatment of*".

#### *ARTICLE 12—Sanitary Districts*

Section 6, Item 17c, insertion was made to read "and such person, firm or corporation shall have at least a reasonable time, *to be determined by the Local Health Director*".

#### *ARTICLE 13—Water and Sewer Sanitation*

Section 4 was left as is, with the request that Dr. Norton and Mr. Jarrett

rewrite it in more detail, with the Attorney General's approval, and mail it to the Board members.

#### ARTICLE 15—*Private Hospitals and Educational Institutions*

Section 1, *Regulation of sanitation by State Board of Health*, was changed to read "To safeguard the health of patients, residents and students of private hospitals, sanitariums, sanitoriums, *nursing or convalescent homes*, educational or other institutions or *abodes* in North Carolina". At the end of the last sentence, "which are covered in ARTICLE 2, Section 8, subsection 13" was added.

#### ARTICLE 17—*Cancer Control Program*

It was suggested that in the note on the changes made in Section 2, the words "and is not limited necessarily to low income citizens" be deleted.

In Section 5, *Reporting of cancer*, in the first sentence, the word "require" was changed to "request".

#### ARTICLE 19—*Loan Fund for Dental Students*

Dr. Dixon suggested that a note should be added to Section 1, explaining that "The Little Jack Loan Fund" be so called at the request of Dr. Branch. The act was supposed to have been named that when it was set up by the fund and was left out of the original law through oversight.

#### ARTICLE 22—*Remedies*

In Section 1, "Except where otherwise provided" was inserted at the beginning of the paragraph.

Section 15, Effective date, should read "This act shall be in full force and effect from and after December 1 following adjournment of the Legislature."

Mr. Ligon was asked to explain the background and purpose of the reorganization commission appointed by the Governor to study organization of state government. The commission asked the Institute of Government to make a study of the inspectional activities of the State Board of Health and the State Department of Agriculture in the areas of meat, milk, poultry, rendering plants, pure food and drugs, soft drinks, to present to them what the statutes of the State Board of Health are and what the statutes of the State Department of Agriculture are. If they feel that some functions in one department should be in the other, they will ask the heads of the departments to meet with them to discuss those possibilities. A factual report, stating where the functions are, is to be presented to the reorganization commission next week. Dr. Norton and Mr. Ballentine have been asked to meet with them.

Dr. Norton reported that there had been another meeting of the Polio Vaccine Advisory Committee on June 21. The main thing brought out was the fact that 1,904,412 ccs. of polio vaccine has been allocated to North Carolina, which includes the thirty per cent that the State Board of Health is permitted to buy and also the amount that is made available to physicians in private practice. We have an eligible population of about 1,800,000 which includes those under 20 plus pregnant women. Also the State has had quite a large amount of vaccine which has not been purchased by commercial channels and has not been available for State Board of Health



purchase, and other states are asking for it. The Committee authorized Dr. Norton as Chairman of the Committee to use his discretion and release vaccine for use in other states, where there is a demand for it and where our demand hasn't caught up. We can call it back when the demand is greater. Under that provision we have released approximately four hundred thousand ccs. The President of the Medical Society, who is a member of the Committee, Dr. Donald Koonce, was asked to form a committee which would sponsor a publicity campaign to build up the demand for the polio vaccine so that the children would get their protection as promptly as possible. Dr. Koonce is moving along with the formation of that committee with Dr. Sam Ravenel of Greensboro, as Chairman, and plans for informing the people about the fact that the vaccine is safe and that it is, as far as we can tell, now apparently relatively effective. The demand now is to be stimulated to become equal to the supply of Salk Vaccine.

Dr. Norton, in explaining the material that had been distributed to the Board members, suggested that every Board member use every possible opportunity to inform whatever groups are available of the program of the State and local health departments, so that the people will be better informed with regard to the work and responsibilities and the importance of the public health work and when we have our next meeting of the Legislature it will help us to have more friends there. Dr. Norton has asked Mr. Richardson to prepare additional material, correlating services, budgets, budget needs, etc. When that information is gotten up it will be sent to the Board members. This should serve as a basis for private and group discussions by Board members to help people to be better informed, such groups as medical society, dental society, service clubs, PTA, women's clubs, etc.

Dr. Norton asked the Board's approval that he discuss the matter of raising the salary range of Division Directors with Mr. Coltrane and Mr. Dinty Moore, who in turn would help sell it to the Advisory Budget Commission. He requested that the President of the Board go with him.

Dr. Baker moved that the Board request of Dr. Norton to take up the salaries of division heads with the assistant director of the budget and with the Advisory Budget Committee with a request that they be at least equal to the range for superintendents of State Mental Hospitals. Dr. Current seconded and the motion carried. Dr. Dixon asked Dr. Norton to make an appointment for them with the assistant director of the budget, to discuss salary increases of the Division Directors.

**August 19, 1956.** A regular quarterly meeting of the North Carolina State Board of Health was held on Sunday, August 19, 1956, at 10:00 a.m., in the Board Room of the Cooper Memorial Health Building with President Dixon presiding.

Dr. John Bender moved that the minutes of the Executive Committee meeting held on April 19, 1956 be approved as circulated to Board members. Motion seconded by Dr. Crump, and carried.

Dr. Dixon read a supplemental paragraph from a letter from Dr. Baker, dated July 6, 1956 which he suggested should be added to the June 1, 1956 minutes of the Board. This insert, or paragraph, also had been circulated

among Board members. Dr. Crump moved, seconded by Mrs. Latta, that Dr. Baker's statement be added to the June minutes, after which the minutes would stand approved as circulated. Motion passed.

On motion of Dr. Crump, duly seconded, the minutes of the July 8, 1956 meeting of the Board, were unanimously approved as circulated.

A further discussion was held regarding Dr. Ann DeHuff Peters' request to be permitted to use sterile normal salt solution in the eyes of newborn babies instead of silver nitrate. It was pointed out by Dr. Elliot that the Board has not approved the proposed procedure. It was the consensus of the members that presently approved procedures should not be changed at this time by the State Board of Health. Dr. Bender moved that the Board notify Dr. Peters of this fact, in a letter. Motion seconded by Mr. Lutz, and unanimously carried.

At this point, proposed budget requests and justifications for the biennium 1957-1959 were taken up. Each Director was asked to present the proposed budget for his Division and explain the various proposed changes and justifications for same. Secretary Norton presented the tentative budget request for Central Administration Division and explained the reason for the transfer of some of the Federal funds to State was in order that several key positions paid for by Federal funds may be transferred to the State payroll,—that we would be on safer ground if Federal funds should be further curtailed. Secretary Norton discussed two new positions for the Board of Health, namely, an Administrative Assistant and a full-time Deputy State Health Officer. The office of Administrative Assistant to the Secretary and State Health Officer was provided when the Board was reorganized on its present basis, in 1950, but no appropriation has been requested up to this time.

Discussing the possible request for a Deputy State Health Officer, the Secretary explained that this position was now in force in many of the up-to-date health departments and its importance was being stressed at national meetings.

At this point, Dr. Norton paid tribute to and expressed appreciation of Dr. Hamilton's work as Assistant State Health Officer, in addition to his many other duties. In considering this new item of the budget, Mr. Lutz moved that the Board go on record as approving this new position and that the official title be Deputy State Health Officer. Motion seconded by Dr. Current, and carried.

In discussing the increase of salaries for Division Directors, it was thought that the salary for the Deputy State Health Officer should rank about the same. The Board also approved the inclusion of a flat 10 percent increase, across the board, for all employees.

Dr. Fred T. Foard, Director of the Division of Epidemiology, went into detail, explaining the proposed requests in his Division and various Sections for increase in salaries, personnel, equipment, etc., and giving justifications for each item. He told why a considerable increase in the allocation for Occupational Health program is necessary and displayed charts and graphs comparing employees engaged in manufacturing industries 1950-1955, and other information pertaining to increase in industry in North Carolina.

Dr. C. C. Applewhite, Director of the Local Health Division, reported on the proposed budget and justifications for local health services. He said that he would appreciate guidance by the Board in preparing a formula to be used for the distribution or allocation of funds to local health departments. This was discussed. Dr. Bender moved that the Local Health Division staff be authorized to propose the same, or to work out a new formula which will provide for a most equitable distribution of State funds to the county health departments, subject to the approval of the State Health Officer. Motion seconded by Dr. Crump, and unanimously carried.

The meeting recessed at 11:45 a.m. for lunch and reconvened at 1:00 p.m.

The first item presented was by Dr. Foard, Epidemiologist, who reported to the Board regarding a case of lepromatous type of leprosy which was diagnosed last year in Surry County and is now receiving treatment in the Public Health Service Hospital in Carville, Louisiana. He said Dr. R. B. C. Franklin, the Health Officer, does not want to assume the responsibility for permitting the patient to return to Surry County and is seeking advice from the State Board of Health as to whether the patient should be permitted to return as long as he is in the infectious stage. The subject was discussed at length, and it was the consensus that no leprosy case, in an infectious stage, should be admitted to North Carolina. Dr. Crump, therefore, moved that the North Carolina State Board of Health disapprove of individuals who are under treatment in the Carville Leprosarium infected with leprosy returning to the State until they are certified by the proper authorities of the USPHS as being non-infectious. Motion seconded by Dr. Bender, and carried unanimously.

Dr. A. H. Elliot, Director of the Personal Health Division, reported on the proposed budget for the Personal Health Division giving justifications for all recommended increases.

Dr. John H. Hamilton, Director of the Laboratory of Hygiene, was next on the agenda for reporting on his requests and justifications for the Laboratory. He discussed the continued growth and activities, especially in cancer cytology, virology, chemistry and bacteriology. He also stated that he was happy to report that on June 30, 1957, the twenty year bonded indebtedness would be paid off for the Shore Laboratory of Hygiene Building.

Discussing the proposed budget and justifications for the Oral Hygiene Division, Dr. Branch reported an imperative need for more school dentists, to provide for expansion of work among the children of North Carolina—for corrective and educational work.

Mr. J. M. Jarrett, Director of Sanitary Engineering Division, followed, explaining the needed increase in personnel for his Department and the justifications for same.

At the close of the hearings, President Dixon recognized Miss Reynolds, the Budget Officer, and gave her an opportunity to make comments with reference to the proposed budgets. There was a general feeling expressed by Board members that the proposals were minimum and that the Board of Health could not carry out its duties with less.

Mr. Jarrett presented a proposal for a new sewage treatment plant and

sewer extensions at Littleton, North Carolina, stating that the town requested it be ordered to make this improvement, so the money could be raised. Mr. Jarrett stated that an investigation had been made of the situation in Littleton which resulted from improperly maintained privies and residential septic tanks, along with four highly overloaded municipal septic tanks which discharge partially treated sewage into small streams creating a health hazard. He also pointed out that all documents relating to this matter had been carefully examined, and were in order according to legal requirements, and recommended that the request be granted. Dr. Crump moved that the RESOLUTION ADOPTED BY THE NORTH CAROLINA STATE BOARD OF HEALTH ORDERING THE TOWN OF LITTLETON, NORTH CAROLINA TO MAKE NECESSARY SEWERAGE AND SEWAGE DISPOSAL IMPROVEMENTS, be approved. Motion seconded by Mrs. Latta, and unanimously carried. (Resolution filed in Minute Book)

Mr. Jarrett also presented a request from the City of Oxford, North Carolina, for the State Board of Health to permit controlled fishing in Lake Devin, the municipal water supply lake. He explained the regulations applicable with the granting of this request and said that, in his opinion, no adverse effects would be experienced in the quality of the water and that fishing from boats would be feasible and safe from a public health standpoint. On motion of Dr. Current, seconded by Dr. Bender, the RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE CITY OF OXFORD, NORTH CAROLINA TO PERMIT CONTROLLED FISHING IN LAKE DEVIN, MUNICIPAL WATER SUPPLY LAKE, was unanimously passed. (Copy filed in Minute Book)

At this point, a further discussion of the revision of the Public Health Laws was considered, and the following changes made, with instructions that Secretary Norton transmit them to Mr. Roddey M. Ligon of the Institute of Government to be included in the revised edition:—

It was moved by Dr. Bender, seconded by Mr. Lutz, that the Board reconsider the action taken at the July 8 meeting relative to changes in the Public Health Laws and omit the wording "a licensed physician" in Article 2, Section 4, page 5. The motion was unanimous. It was moved by Mrs. Latta, seconded by Dr. Bender, that in view of the fact that the General Assembly has seen fit to have a dairyman listed as a *must* appointment by the Governor, that the wording "reputable dairyman" be added to the revision as a member of the Board. Motion unanimously carried. The revised change reads as follows:—*ARTICLE 2, Section 4, page 5*—Change last sentence of paragraph to read "One of the members appointed by the Governor shall be a licensed pharmacist, one a reputable dairyman, and one a licensed dentist."

*ARTICLE 13, Section 4, page 138*:—*Sanitary sewage disposal; rules*,—should read as follows:—"Any person owning or controlling any residence, place of business, place of public assembly, or other improved real property shall provide a sanitary system of sewage disposal consisting of an approved privy, an approved septic tank or a connection to a sewer system under rules and regulations promulgated by the State Board of Health."



The following items of interest were reported on and discussed by Secretary Norton:—(1) Dr. Leroy E. Burney's appointment as Surgeon General of the USPHS to succeed Dr. Leonard A. Scheele at Washington, D. C., (2) attendance by the Secretary at the Work Conference on Nuclear Energy held in St. Petersburg, Florida; (3) met with and addressed for the third time the State Association of County Commissioners. The Secretary also reminded the Board that the NCPHA will meet in Asheville, May 28, 1957, for only one day because North Carolina will be host to the Southern Branch, APHA, in Asheville, May 29-31, 1957, which consists of sixteen Southern States and the District of Columbia. Dr. Norton urged that as many of the Board members as possible attend meetings of the health officers at State Medical Society meetings and NCPHA—that it gave the health officers inspiration and stimulus to know that their State Board is back of them with understanding and support. Dr. Norton also announced the meeting of the State and Territorial Health Officers and the Conference of the Surgeon General of the USPHS and the Chief of the Children's Bureau in Washington, November 2-10; also the meeting of the American Public Health Association, Atlantic City, November 11-16, 1956. The Secretary also reminded the Board members that when they call in to the Central Office here on official business it is appropriate for that call to be made "collect".

Dr. Norton invited the Board's attention to an article in the "News and Observer", in which it was stated that he is opposed to making vaccination against poliomyelitis compulsory at this time; that, in his opinion, it should be continued on a voluntary basis until that has been given a fair trial and the necessity for compulsion should arise. The article commented that two local health officers favor a compulsion enactment by the 1957 General Assembly. The Board appeared in agreement with postponement of any request for legal compulsion.

The Secretary announced that the official budget hearing for the State Board of Health would be held Wednesday, September 5, 1956, 9:00 a.m. to 1:00 p.m., Room 513 Revenue Building, and urged that as many members as could possibly do so attend on an official trip for which they would be entitled to reimbursement.

Dr. Dixon stated that he had reached the conclusion that it was not advisable to call Board meetings on Sunday and that there would be none, unless absolutely necessary.

**October 17, 1956.** A meeting of the North Carolina State Board of Health was held on Wednesday, October 17, 1956, in the Board Room of the Cooper Memorial Health Building, 2:30—4:50 p.m., with President Dixon presiding.

On motion of Dr. Lenox D. Baker, seconded by Dr. G. Curtis Crump, the minutes of the August 19, 1956 Board meeting were approved as circulated by the Secretary.

Secretary Norton discussed a revision of a change in the recodification proposal to include the mayors of cities other than county seats, when the population is above 15,000, on county boards of health as regular ex-officio members of a county board of health. The Secretary was asked if he recom-

mended the change, and he replied that this proposed change would have many supporters and few to object. Dr. Baker moved that *ARTICLE 3, Section 1, page 15, line 7*, be amended to read after the parenthesis: "the mayor of any other incorporated city within the jurisdiction of the county health department, and which has a population in excess of 15,000 according to the latest decennial census, and that other appropriate changes to conform to this amendment be made." Motion seconded by Dr. Crump, and carried unanimously.

Secretary Norton called the Board's attention to the fact that in the old public health laws there was no reference to the position of Vice-President of the Board, and since the Board has such an office it should be recognized by statute. It was moved by Dr. Baker, seconded by Dr. Current, that the word *Vice-President* be inserted after the word *President* on page 6, line 6, Article 2, Section 3. Motion carried unanimously.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented a request for the proposed new sewage treatment plant and sewer extensions at Ayden. He stated that the town of Ayden had requested an order from the State Board of Health to install said plant and sewer extensions. He pointed out that his Division had investigated the sanitary conditions—that the Board of Commissioners had adopted a resolution requesting an order making it mandatory that Ayden install an adequate sewage collecting system and sewage treatment plant in order that the town could issue sufficient bonds to cover the two installations. Mr. Jarrett recommended that the request be adopted. On motion of Dr. Lawrence, seconded by Mr. Lutz, the **RESOLUTION ORDERING THE TOWN OF AYDEN, NORTH CAROLINA TO MAKE NECESSARY SEWERAGE AND SEWAGE DISPOSAL IMPROVEMENTS** was unanimously carried. (Copy of resolution filed in Minute Book)

Mr. Jarrett also presented a request from the town of Creedmoor for permission of the State Board of Health to permit controlled fishing in Creedmoor Lake, the municipal water supply lake. He pointed out that with the volume of water in the lake and the strict regulations controlling fishing activities no adverse effects would be experienced in the quality of the water and that fishing from boats would be feasible and safe from a public health standpoint. He recommended favorable action by the Board on this request. On motion of Dr. Current, seconded by Mrs. Latta, the **RESOLUTION OF THE NORTH CAROLINA STATE BOARD OF HEALTH AUTHORIZING THE TOWN OF CREEDMOOR, NORTH CAROLINA TO PERMIT CONTROLLED FISHING IN CREEDMOOR LAKE, MUNICIPAL WATER SUPPLY LAKE**, was unanimously carried. (Copy of Resolution filed in Minute Book)

In the absence of Mr. Earle C. Hubbard, Executive Secretary of the State Stream Sanitation Committee, Mr. Jarrett gave a preliminary report on a study of closer coordination between the State Board of Health and the State Stream Sanitation Committee as it relates to overlapping duties and stated that it was the opinion of the Committee that it might be well to have Mr. Ligon of the Institute of Government review the Stream Sanitation laws in connection with revising the regulations relating to water and sewerage as contained in our public health laws, in

order that the Stream Sanitation Committee would be more closely allied with the State Board of Health. After this report and review from Mr. Ligon, Mr. Jarrett and Mr. Hubbard will go over the recommendations of Mr. Ligon with the Stream Sanitation Committee and then submit the revisions to their Boards for their consideration and advice.

Secretary Norton reported briefly on the four personnel recommendations from the Commission on the Reorganization of the State Government, as they affect the Board of Health. He read each recommendation and commented on them; also said he had had a visit with Mr. Donald Hayman and that the Merit System Council was in contact with the Reorganization Commission. The first two are probably unnecessary and there were particular objections to items *three* and *four*. No action taken other than a request to keep the Board informed.

Dr. Martin P. Hines, Chief of the Public Health Veterinary Section, presented a request for two amendments to Regulation 40, relating to the quarantine and destruction of psittacine birds. In presenting these requests, Dr. Hines asked that in the regulation providing for the destruction of infected psittacine birds, a paragraph be added to *Item 1 of Section P* entitled "Authority and Notice", which will provide that treatment recently made available may be given in lieu of the destruction of birds in infected aviaries. Dr. Hines also requested that *Item 4 of Section P* (Page 3 of existing regulation) entitled "Birds Not of the Psittacine Family" be entirely deleted from the regulation governing infected turkeys and other domestic fowls, and another paragraph substituted. The change in regulations was discussed. Dr. Lawrence moved that the following revision of the communicable disease Regulation 40 relating to psittacosis be accepted. Motion seconded by Dr. Crump and carried unanimously. The revision follows:

#### REVISION OF COMMUNICABLE DISEASE REGULATION 40 RELATING TO PSITTACOSIS

WHEREAS, various methods of treating psittacine and non-psittacine birds known to be infected with psittacosis, have been found to be effective, and

WHEREAS, no indemnity is provided the owner or other person in possession of infected birds which must be destroyed under present Regulation 40,

NOW, THEREFORE, Regulation 40, governing the control of psittacosis is hereby revised as follows:

##### Section P. *Control of Birds.*

##### 1. *Elimination or treatment of Infected Birds.*

*Authority and Notice.* By adding, at the end of existing paragraph, the following:

"The owner of proved infected birds or those which have been exposed to or associated with birds proved to be infected with psittacosis may elect in lieu of destruction, to treat said birds under the supervision of and in a manner prescribed by the North Carolina State Board of Health. If, following treatment, the quarantine authority finds that a health hazard no longer exists, it may release the bird or birds from quarantine."

##### Section P. *Control of Birds.*

4. *Birds Not of the Psittacine Family.* By striking out the entire paragraph beginning with the word "Birds" and ending with the word "Health" and substituting therefor the following paragraph:

"Birds not of the psittacine family are to be regarded as dangerous to the public health when they have been proved to be infected with psittacosis or have been exposed to or have associated with birds proved to have psittacosis. Such birds shall be quarantined by the local health officer or by a representative of the North Carolina State Board of Health, and shall remain in quarantine until either destroyed or treated under supervision of and in a manner prescribed by the North Carolina State Board of Health. If, following treatment, the quarantine authority finds that a health hazard no longer exists, it may release the bird or birds from quarantine."

Secretary Norton, Dr. Branch and Dr. Current all discussed the fluoridation of municipal water supplies, expressing their hearty approval of this public health measure which had previously been approved by the Board. Dr. Current, in his discussion, described the program now being promoted in Gaston County.

At the request of Dr. Grady Dixon, Miss Mary B. Deaver, Chief of the Nutrition Section, was present. He had asked her to present some ideas for combating the problem of malnutrition in infants and young children as this seems to be a primary need in his community. She discussed the possibility of using a community such as Pitt County for developing a pilot study in this area of nutrition.

Dr. Baker moved that the Board go on record as approving such an educational study or program, and also that the one additional nutritionist be secured which has already been included in the proposed budget. Motion seconded by Dr. Current and unanimously adopted.

At this point, Dr. Baker referred to the Board minutes of July 8, 1956, in regard to the motion of Dr. Crump, seconded by Dr. Current and passed relative to the State Health Director's holding a Master's Degree. Dr. Crump moved that the above motion be rescinded and deleted from the minutes with regard to this qualification and that the wording in lieu thereof be inserted as follows: "*and shall be trained in, and shall have had experience in, Public Health work*". Motion seconded by Dr. Current, and unanimously carried.

Dr. Baker also stated that there was another sentence in the same paragraph which could be improved on. It now reads "*The State Health Director shall be the Executive Officer of the Board and shall devote his entire time to Public Health work*". That public health work as now used would not limit his work in that field in other areas not of interest to the State of North Carolina, and he suggested adding to that sentence the words "*as approved by the State Board of Health*". Dr. Baker moved that this change be made. Seconded by Mr. Lutz, and carried.

**February 14, 1957.** The meeting was called to order by Dr. G. Grady Dixon, President, presiding. The new member of the Board, Dr. Roger W. Morrison, (replacing Dr. Curtis Crump) was sworn in by Justice William H. Bobbitt.

The minutes of the October 17, 1956, meeting were approved as read.

Dr. Norton gave a further report on polio vaccine. Dr. Foard had made available a folder of material for the information of the members. One of the problems facing us now is that federally purchased vaccine can only be given to those under twenty and pregnant women. With that in mind, the American Medical Association called in the President of the State



Medical Societies and Dr. Sam Ravenel, Chairman of the Special Committee on Polio Vaccine also attended a meeting in Chicago on January 26. At that time, it was felt that something should be done to try to get the people between twenty and forty protected. In the discussion, it was suggested that the Board of Health and the Medical Society go in together and make a request of the Governor and Council of State for funds from the Contingency and Emergency Fund to provide polio vaccine for this age group between now and June 30. It was suggested that a rough draft of a letter to the Governor and Council of State be prepared requesting funds from the Contingency and Emergency Fund. Dr. Norton asked that the Board approve this action. The Executive Council of the Medical Society has already approved. They also approved support by the Legislative Committee of our budget request and also request for recodification. Early reports on intradermal vaccine indicate that it is of no value, or of so much lower value, that it is well to stick to what we have been doing. In answer to another question brought up, information gathered by Dr. Salk indicates that it does not matter if the third inoculation is given more than seven months after the second inoculation.

Dr. Baker moved that the Board join the Medical Society in a request for funds from the Contingency and Emergency Fund. Dr. Current seconded the motion. Unanimously carried.

Dr. Foard added that within the last two or three weeks, the vaccination program over the State has been greatly stimulated.

Dr. Norton said that the Executive Council, on February 3, also asked the President to get out a letter to all local medical societies and request the Editor of the Medical Journal to do everything they could to stimulate getting this protection prior to the opening of the warm season. The State Board of Health staff is to provide background information to Dr. Koonce and Dr. Johnson for these.

Dr. Charles F. Cameron gave a report on the accident prevention program and gave comparative figures on home accidents with other accidents and communicable diseases of children and other diseases. Dr. Cameron expressed the hope that since the three-year Kellogg Foundation support of the accident prevention program rapidly draws to a close, there might be some procedure whereby this activity can be continued. Mr. Hasson of the Foundation is to come for a visit February 20. Dr. Norton advised the Board that the Advisory Budget Commission did not recommend any funds for continuation of this work.

Dr. Baker moved, seconded by Dr. Lawrence, that the Board make an appeal to the Joint Appropriations Committee. Approved.

Dr. Dixon introduced Dr. Morrison to the division directors who were present, and also two health officers, Dr. H. W. Stevens of Asheville and Dr. G. O. Moss of Rutherfordton.

Miss Reynolds was called on to make a report on the budget. She informed the members of the budget requests that were approved by the Advisory Budget Commission and those that were denied, and explained each item. Dr. Norton stated that copies of the summary which she presented would be mailed to the members.

Dr. Applewhite gave a report of the Health Officers' Conference held on

February 13, the main purpose of which was to discuss the results of the Advisory Budget Commission's recommendations in the hope that the health officers might be of assistance in getting appropriations for local health work.

Dr. Norton gave a report on staff changes. Dr. Robert D. Higgins has succeeded Dr. Benjamin M. Drake as Assistant Director of the Local Health Division, and Dr. Charles F. Williams has replaced Dr. Madeleine E. Morcy, now with the Children's Bureau, as pediatric consultant in the Maternal and Child Health Section. Dr. Bertlyn Bosley, who has been away for a year helping with the nutrition program for the Indian Health Service, has asked for a few more months, perhaps a year, to complete her work before coming back to the State Board of Health, and she has been written that such a recommendation will be made to the Merit System Council.

Dr. Norton explained some of the recommendations in the report of the Reorganization Committee, and suggested each Board member request a copy of the report.

Dr. M. T. Foster, Health Officer, and Dr. Richard Knight, Veterinarian from Fayetteville, were introduced.

Dr. Hines was called on to make a brief report on the proposal to recognize rabies vaccine of chick-embryo origin for a period of three years. He read a statement from the Communicable Disease Center of the U. S. Public Health Service and presented a resolution passed by the State Veterinary Association in June of last year for the Board's consideration. This resolution requests that the State Board of Health recognize the vaccine for a period of three years, allowing the counties, in which there are no veterinarians to administer the chick-embryo vaccine, to continue the use of vaccine of nervous tissue origin to be administered every year. The health officers at their meeting on February 13 voted 44 to 3 requesting this action by the State Board of Health.

Dr. Foster and Dr. Knight explained their positions. Dr. Foster presented a letter to Dr. Norton from Mr. Roscoe Blue, Chairman of the Cumberland County Board of Commissioners and of the County Board of Health, which Dr. Norton read to the group. They are of the opinion that in two or three years it might be fine to change their vaccination program, but wonder if it would not be a little premature at this time.

After some discussion, Dr. Baker moved that the resolution be adopted with the exception that in the last sentence of No. 2, after "when a district or county board of health", "or the State Board of Health" be inserted. Dr. Current seconded and the motion carried. (Copy filed in Minute Book)

The meeting adjourned for lunch at 12:30 p.m. In the afternoon meeting, Mr. Jarrett presented three items for consideration of the Board.

Dr. Bender moved that the Saw Mill Sanitary District in Caldwell County be created, seconded by Mrs. Latta. Unanimously carried. (Copy filed in Minute Book)

Dr. Baker moved that the extension of the Rural Hall Sanitary District in Forsyth County be approved, seconded by Dr. Henderson. Approved unanimously. (Copy filed in Minute Book)

Dr. Baker moved that the State Board of Health order a new sewage

collection system for the Town of Parkton, seconded by Mrs. Latta. Approved unanimously. (Copy filed in Minute Book)

Mr. Jarrett explained that the new Stream Sanitation law is written in such a way that the State Board of Health will be the administrative agent and the State Stream Sanitation Committee will set the policies, which is what was originally intended when the law was passed. Stream Sanitation would be a unit of the State Board of Health, retaining its own board.

Senator Whitfield, who is Chairman of the State Stream Sanitation Committee, read a resolution passed by the Committee, approving the new law which will be presented to the Legislature if approved by the State Board of Health. He explained that the purpose of the law is to eliminate duplication that industry has complained of and put all Stream Sanitation under one agency. He said that the Reorganization Committee has drawn up a similar bill. Mr. Hubbard read portions of the Stream Sanitation Committee's proposed bill and gave a copy to each member of the Board.

Dr. Dixon suggested a called meeting of the State Board of Health, or Executive Committee, and the State Stream Sanitation Committee.

Dr. Baker commented: "it appears that the changes outlined by Mr. Whitfield cannot possibly be reviewed today as to details. It also appears that some early tentative approval is needed in order that they may proceed with their preparation for introducing the bill. I, therefore, move that the State Board of Health approve of the principles as outlined by Mr. Whitfield concerning the proposed legislation but until the members of the Board of Health have had an opportunity to read the bill, this approval is not to be interpreted as approving the details thereof. Also that we concur in principle with the resolution of the State Stream Sanitation Committee passed at the meeting on February 12, 1957 regarding the establishment of a Stream Sanitation Unit within and administered by the State Board of Health." Dr. Current seconded the motion. Approved unanimously.

It was decided that the Executive Committee of the State Board of Health, and any of the other members who could be present, would meet with the State Stream Sanitation Committee at two o'clock Thursday, February 28. Mr. Ligon was also asked, and promised to be present.

Mr. Ligon gave a further report on the recodification of public health laws. The following changes were made since the last revision by the Board.

Page 7: The last sentence of the last paragraph 130-6, "He shall be subject to the provisions of Chapter 126 of the General Statutes of North Carolina" was added so that the Assistant State Health Director will be under the Merit System.

Page 7: In 130-7, "1958" was changed to "1959".

Page 8: In 130-9, (1) *Powers and duties of the State Board of Health*, "facsimile of the signature of the State Health Director" was added. The same phrase was added in 130-11, 8.

Page 8: 130-11,10, after "State Board of Public Welfare or other state agency or institution", "of public institutions and facilities including those subject to license or inspection by such State Board of Public Welfare or other state agency or institution" was added.

Page 15: "the ex-officio member shall name the four public members" was added.

Page 17: "meeting jointly" was added in the sentence "The ex-officio members shall be selected by the chairmen of the boards of county commissioners, meeting jointly, of the counties concerned". In the next sentence "at least" was added after "Shall include". In the same paragraph, the sentence "If more than four counties form a district, an additional public member may be added for each county in excess of four." was also added.

Page 18: In the last paragraph "by the chairmen of the boards of county commissioners of the counties within the district, meeting jointly" was changed.

Page 19: 130-16, "plus necessary travel expenses" was added.

Page 21: 130-18, *Health Director*.

Page 21: 130-19, "principals and teachers" was added after "The county and city boards of education, the county and city superintendents of schools".

Page 23: Plural was changed to singular to conform.

Page 23: The last sentence "The person employed as county physician may be appointed as county medical examiner under the provisions of G. S. 130-197."

Page 38: 130-47, "shall" was changed to "may" in the sentence "the board of county commissioners may pay the coroner a fee or salary."

Page 43: All of 130-57 was added.

Page 51: 130-70 was changed so that birth and death records will be confidential except to certain persons.

Page 65: The last sentence of 130-94, "All applicants for a marriage license must obtain a health certificate in accordance with the provisions of Chapter 51 of the General Statutes of North Carolina." was added.

Page 65: 130-95, "and local boards of health" was added after "and shall cooperate with the State Board of Health".

Page 89: 130-128, 15, after "and to provide fire protection in said district" "such taxes to be levied and collected at the same time and in the same manner as taxes for debt service" was added.

Pages 116 and 117: The whole paragraph beginning "In addition to the above-stated method of dissolving a sanitary district" was added.

Page 124: 130-166, 1. is completely new.

Page 157: 130-200, (d) was deleted.

Dr. Baker moved that as the report was read, it be automatically approved, unless said otherwise. Dr. Bender seconded. Approved unanimously.

Dr. Baker moved that his thanks and appreciation be put in writing in the form of a letter and if feasible be turned over to the public relations department and be made public. Dr. Current seconded.

Dr. Baker again referred to the Stream Sanitation Law and asked Mr. Jarrett to comment on certain items. Mr. Jarrett said that he has some minor reservations but that he approves of the proposal.

February 28, 1957. There was a joint meeting of the State Board of Health Executive Committee and the State Stream Sanitation Committee held on February 28th, with President Dixon presiding.

Senator Whitfield explained that the purpose of the bill, Chapter 143, is to establish State Stream Sanitation under the State Board of Health, the State Board of Health to be the administrative agency and the State



Stream Sanitation Committee to be the policy-making agency, in order to avoid duplication in the two agencies and criticism on the part of the public. This is similar to the Tennessee plan, which is working very satisfactorily.

Mr. Jarrett, at the request of Dr. Norton, presented changes in Chapter 143 suggested by Dr. Lenox D. Baker, a member of the State Board of Health who could not be present, along with Mr. Jarrett's comments on those changes. After lengthy discussion of all items referred to by Dr. Baker in his letter to Dr. Norton and members of the Executive Committee, the following changes were approved by the groups:

Section 143-211 was amended by adding after the word "methods": subject to the approval of the State Board of Health, designed to protect the water requirements for health. Further, this agency is authorized to establish methods designed to protect the water requirements for recreation."

Section 143-213 (e) was amended to read as follows by inserting after the word "nominees": "acceptable to both the Board and Committee".

Section 143-214 (d) 2, page 6, was amended by adding after the word "economic": "or health".

Section 143-215 (a) 4, was amended by adding after the word "committee": "or State Board of Health".

Amend Section 143-215 (a) 5, third paragraph by adding after the word "section": "and under provisions of Chapter 130 of the General Statutes".

Amend Section 143-215.2 (a), page 14 by inserting after the word "may": "under provisions of this article".

Amend Section 143-215.2 (b), page 15, by inserting after the word "approval": "pursuant to this section."

Amend Section 143-215.3 (b), page 17, by inserting after the word "Board" in lines 4 and 8 the words: "or committee".

Amend Section 143-215.6 (a) 2, page 21 by changing the word "has" to "had".

Mr. Ligon also discussed the legal language of a number of sections questioned by Dr. Baker and agreed that slight changes in language in some instances might tend to clarify, but since the wording used in this bill was copied from the existing law, it was thought best to not suggest any drastic changes at this time to the Reorganization Commission.

Senator Whitfield asked if items 159-161 in Chapter 130, pages 121 and 122 of the re-write of public health laws would not be a duplication in Chapter 143, if both bills are passed by the Legislature. Mr. Jarrett explained that since the State Board of Health is to be the administrative agency, this part of Chapter 130 would strengthen the Stream Sanitation program. Mr. Hubbard agreed.

It was decided that these suggested changes would be presented to the Reorganization Commission for their approval. Senator Whitfield explained that the Reorganization Commission has drawn up a similar bill which will be presented to the General Assembly, but this bill will be presented as a substitute bill.

**April 25, 1957.** A regular meeting of the North Carolina State Board of Health was held in the Board Room of the Cooper Memorial Health Building on Thursday, April 25, with President Dixon presiding.

Upon motion duly made and seconded, the minutes of the February 14, 1957, meeting were approved without being read, since all members had previously received copies. Also, the minutes of the Executive Committee meeting, held on February 28, 1957, were approved as circulated.

Secretary Norton gave a further progress report on the budget request for the biennium which had been presented to the Advisory Budget Commission and Joint Appropriations Committee with the order of priority determined according to most vital need such as—aid to local health departments, training, accident prevention, visual aid films, additional funds for cancer, nutrition, bacteriologists, etc.

Dr. Norton also gave a report of progress made so far in the recodification of Public Health Laws. He stated that the Bill had been introduced in the House and Senate and was referred to the Health Committees of both Houses. The Committees have been meeting jointly; also, a joint subcommittee has been appointed by the House and Senate Health Committee Chairmen. This subcommittee was reported to be progressing very nicely. Dr. Norton pointed out that Dr. Baker had met with the Committees several times and had been able to explain a good many things in such a way that they have been accepted very well. When the Bill is completed by the subcommittee, then it goes to the Health Committees of the House and Senate; then to the floor of the General Assembly. Mr. Reid Thompson, House Member from Pittsboro, is Chairman of the joint subcommittee and has done a superior job.

During the meeting, a discussion developed regarding a change in the hour for the Conjoint Session of the State Board of Health and the State Medical Society meeting. It was pointed out that while the statute provides that such a meeting shall be held on the second day of each annual meeting of the State Medical Society there is nothing mandatory about the hour which must be decided now solely by the Program Committee of the Medical Society. It was the consensus that the State Board of Health should be consulted as to its convenience in the matter. The discussion led to the passage of the following motion, made by Dr. Baker:—There shall be four regular meetings of the State Board of Health each year, one of which shall be held conjointly with a general session of the annual meeting of the Medical Society of the State of North Carolina, at a time and place designated by the State Board of Health and the Program Committee of the Medical Society of the State of North Carolina at which time the State Director of Health's annual report shall be submitted. The motion was seconded by Dr. Bender, and carried unanimously.

Dr. Norton announced that Dr. John H. Hamilton, the Assistant State Health Officer and Director of the Laboratory, would present the Conjoint Report for this year.

Dr. Fred T. Foard, Epidemiologist, gave a statement on the present status of the poliomyelitis vaccination program and a summary on polio vaccine inoculations given in North Carolina from 1954 to the present.

Dr. John H. Hamilton, Director of the Laboratory Division, discussed the method and way in which the Laboratory has been receiving gamma globulin from the NFIP and the American Red Cross, and how it has been distributed. Also, as of December 1955, the National Institute of Health

discontinued the allotment of gamma globulin to North Carolina and that the American Red Cross has reduced its allotment. Dr. Hamilton stated that the Laboratory is receiving requests for more gamma globulin than its allotments. After discussion, it was the consensus to restrict its use to the control of measles and hepatitis and that a policy be adopted for a method of procedure for distribution was presented. Upon motion of Dr. Lawrence, seconded by Mr. Lutz, the following motion was unanimously passed:—“(1) That gamma globulin made available by the American National Red Cross and distributed by the State Laboratory of Hygiene be distributed to local health officers. (2) That all such gamma globulin be limited to the control of infectious hepatitis and the attenuation of measles in children, provided that for debilitated children it may be used to prevent measles.”

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, was present and discussed a request for an order to construct a new sewage treatment plant and sewage collection system at Red Springs, N. C. He stated that documents and other pertinent data had been examined by his office, and in his opinion, were in order. He, therefore, recommended that the Board act favorably upon this request. Dr. Baker moved that the resolution ordering the Town of Red Springs to make necessary sewerage and sewage disposal improvements be adopted. Motion was seconded by Mrs. Latta, and unanimously carried. (Resolution filed in Minute Book)

Mr. Jarrett also discussed an order for Spring Hope, N. C., to construct a new sewage treatment plant and collection system. He recommended favorable action by the Board on this request, stating that all documents and transactions had been carefully examined and found in order by his office. On motion of Dr. Lawrence, seconded by Mrs. Latta, the resolution ordering the Town of Spring Hope to make necessary sewerage and sewage disposal improvements was carried unanimously. (Copy of Resolution filed in Minute Book)

Mr. Jarrett presented a request from Mr. P. J. M. Bayne, Chairman of the Dare Beaches Sanitary District, to promote temporary relief from the mosquito menace by fogging on the ground and also spraying from the air. The matter was discussed in full. Mr. Lutz moved, seconded by Dr. Baker as follows: “That approval be given the Dare Beaches Sanitary District to engage in a program of mosquito and malaria eradication by the application of space spraying from ground equipment, in accordance with Paragraph 11, Section 130-39 of the General Statutes of North Carolina.” Motion carried.

Dr. Baker then asked Mr. Jarrett if he was satisfied with the rewrite of the Stream Sanitation Law. He stated that he was not in favor of the amendment as suggested by Mr. Whitfield and gave his reasons as to why, in his opinion, it would be bad administrative policy to have two engineering units at the State Board of Health. Mr. Jarrett stated that his recommendation would be that a section of Water Pollution Control be established in the Sanitary Engineering Division as he felt that in this way the programs could be more closely coordinated and less friction and overlapping of responsibility would follow.

Mr. Reid Thompson, representative from Chatham, who is a member of

the House Health Committee and Chairman of the Subcommittee of the House group, was introduced to the Board. Secretary Norton complimented him very highly for the wonderful job that he and his co-workers are doing on the recodification of the Public Health Laws.

**April 25, 1957.** There was a joint session of the State Board of Health with the Executive Committee of the State Stream Sanitation Committee held at noon, Thursday, April 25, 1957, in the Board Room of the Cooper Memorial Health Building, President G. Grady Dixon, presiding.

Mr. Whitfield opened the discussion by stating that the purpose of this joint session was to consider ways and means of bringing about closer cooperation of policies for both industrial and municipal wastes and the avoidance of duplication and confusion. An open discussion then followed—participated in by all present. The general conclusion was that the Stream Sanitation Law should be amended so as to bring about closer cooperation between the Stream Sanitation Committee and the State Board of Health and that the administrative staff on the State Stream Sanitation Committee would serve under the State Board of Health. By clarifying the duties of each it is proposed to eliminate actual duplication of work. The unit carrying out policies determined by the State Stream Sanitation Committee would be known as the Division of Water Pollution Control. Whereupon, Dr. Baker made the following motion.

- “(e) A Division of Water Pollution Control shall be established within the State Board of Health to do stream sanitation work. This Division shall be responsible for administering the provisions of this Act and shall be responsible for performing such other duties as may be assigned to it by the State Board of Health relating to the control of municipal institutional and industrial sewage and waste collection and disposal systems. The director of such Division shall be selected by the State Board of Health from nominees acceptable to both the Board and Committee. He shall be a well-qualified sanitary engineer, fully trained and experienced in the field of waste disposal. He shall:
- (1) serve as the administrative officer of the Committee and shall attend all meetings of the Committee, without voting power, and shall keep an accurate and complete record of all meetings, hearings, correspondence, laboratory studies, and technical work and shall make these records available for public inspection at all reasonable times;
  - (2) review and approve plans, specifications and such other documents as may be required in connection with applications filed for certificates of approval, permits, or other documents of approval under the provisions of this Act; (3) and perform such other related duties as the Committee or State Board of Health may from time to time direct.”

The motion was seconded by Dr. Lawrence, and carried unanimously.

**May 8, 1957.** The State Board of Health and the Medical Society of the State of North Carolina met in Conjoint Session, as required by law, in the Municipal Auditorium in Asheville, Wednesday, May 8, 1957, at 9:05 a.m., Dr. G. Grady Dixon of Ayden, President of the Board, presiding.

President Dixon presented Dr. J. W. R. Norton, State Health Officer and he in turn presented Dr. John H. Hamilton, Director of the State Laboratory of Hygiene and Assistant State Health Officer, who, at the request of Dr. Dixon and Dr. Norton, gave the annual conjoint report of the Board of Health to the Medical Society.



Dr. Dixon announced that the Medical Society had set its approval on three members of the Board. Dr. John R. Bender, of Winston-Salem, was re-elected. Dr. Roger W. Morrison, of Asheville, appointed by the Executive Council of the Medical Society of the State of North Carolina to serve until the next meeting of the Society, was elected to fill out the remaining two years of the unexpired term of Dr. Curtis Crump, also of Asheville. Dr. Charles R. Bugg, of Raleigh, was elected to succeed Dr. Ben J. Lawrence, whose term had expired. Dr. Dixon recognized Board members present at the Conjoint Session and noted that Dr. Lenox D. Baker, member of the Board was elected President-Elect of the Medical Society of the State of North Carolina.

No separate session of the Board was held.

**July 18, 1957.** The North Carolina State Board of Health met in regular quarterly session, Thursday, July 18, 1957, in the Board Room of the Cooper Memorial Health Building. Associate Justice Emery B. Denny, of the Supreme Court of North Carolina, administered the oath of office to the following for four-year terms, expiring in May, 1961:

*Governor Luther H. Hodges' appointees:*

Zeno L. Edwards, Sr., D. D. S., (new appointee), Washington  
*Elected by the Medical Society of the State of North Carolina:*

Charles R. Bugg, M. D., (newly elected), Raleigh

John R. Bender, M. D., (re-elected), Winston-Salem

Roger W. Morrison, M. D., (re-elected), Asheville. (Two years to run on term of Dr. G. Curtis Crump, resigned)

The meeting was called to order by President Dixon.

President Dixon announced that, due to changes in the Board, a Vice-President and Executive Committee should be elected. Dr. Baker moved that, since the Governor had not named all of his appointees, the Board elect a temporary Vice-President until the two new remaining members are appointed. Motion seconded by Dr. Bender, and unanimously carried.

Dr. Henderson moved that Dr. John R. Bender be nominated temporary Vice President. Motion seconded by Mr. Lutz, and unanimously passed.

President Dixon appointed Dr. Lenox D. Baker to serve on the Executive Committee until he is re-appointed or his successor named.

Upon motion duly made and seconded, the minutes of the Board meetings held on April 25, 1957, were approved without being read, as copies had been circulated to members.

It was moved and seconded that minutes of the Board meeting held on May 8, 1957, be approved as circulated.

Dr. Fred T. Foard, Director of the Division of Epidemiology, presented a further progress report on the Salk poliomyelitis vaccine and the vaccine program in North Carolina. He distributed information to the Board members on the amount of vaccine purchased and distributed, also pertinent further breakdown information on inoculations, as of July 18, 1957. In summarizing, Dr. Foard stated that "of 46 poliomyelitis cases reported to date this year, 10 were paralytic and two of these had three inoculations of vaccine. Thirty-six were nonparalytic. Of the nonparalytic, 10 had three inoculations, two had two inoculations, 24 had no vaccine. Only

21.7 per cent of all cases have been paralytic in 1957 as compared with 56.8 per cent in 1956."

As further information for the Board, Dr. Foard discussed the temporary release of Mr. William H. Hudson of Dobson, from the Carville, Louisiana, Leprosarium, to visit his home in Surry County, for a 30-day period. Mr. Hudson, a patient at the USPHS Hospital in Carville, requested permission to return home last year. This request was denied by the Board of Health until such time as Mr. Hudson could be released with assurances of safety by the Hospital authorities at Carville. Mr. Hudson made a second request about two months ago to the State Health Officer, and he was advised that the matter would have to be deferred for further consideration and action by the Board. In the meantime, the State Health Officer was advised by Dr. Rolla R. Wolcott, Clinical Director of the Leprosarium, that Mr. Hudson was leaving for Surry County by auto. He also stated that there was "no contraindication to the patient's leave of absence from the Leprosarium and that the hospital could not hold the patient under present circumstances." The Health Officer of Surry County advised that the patient had arrived, was very cooperative in maintaining isolation, and will return to the Leprosarium after 30 days.

Dr. Foard also reported briefly on the rapid spread of influenza throughout the Far East and Asia, and of the recent outbreaks of a similar type in California, New England and Iowa. All contacts who attended the Grinnell, Iowa meeting in North Carolina are being followed through and there have been some cases of influenza reported in North Carolina. Dr. Foard stated that this is definitely a different type of strain A influenza and the PHS is studying, typing and using sera collected from influenza-like infections occurring in different parts of the country with the view of determining the extent to which the Asiatic type of influenza has spread. A vaccine is being prepared to include this new strain.

Mr. J. M. Jarrett, Director of the Division of Sanitary Engineering, outlined and discussed the proposed revisions to the Restaurant Sanitation Regulations. He stated that these revisions were necessary, in order to clarify requirements for food stands and drink stands. Dr. Bender moved that the Board approve the Restaurant Sanitation Regulations as submitted. Motion seconded by Dr. Baker, and carried. (Copy filed in Minute Book)

Mr. Jarrett presented a request from the Town of Graham for permission of the State Board of Health to permit controlled fishing in Town Lake, the municipal water supply lake, located on Back Creek. He stated that an investigation had been made by the Division and with strict regulations controlling fishing activities, that no adverse effects would be experienced in the quality of water and that fishing from boats would be feasible and safe from a public health standpoint. Also, Mr. Jarrett presented and discussed a similar request from the Town of Kernersville for permission of the Board to allow controlled fishing in Kernersville Lake, the municipal water supply lake. Mr. Jarrett stated that this request also had been thoroughly investigated by his Division, and in view of all the information, he recommended approval by the Board. On motion of Dr. Baker, seconded by Dr. Henderson, the resolutions authorizing both the Town of Graham and the Town of Kernersville to permit controlled fishing in their respec-



tive municipal water supply lakes, were passed. (Copy of resolutions filed in Minute Book)

Mr. C. M. White, Chief of the Insect and Rodent Control Section, gave a report on the activities and work of the Salt Marsh Mosquito Control Commission since 1955. The 1957 General Assembly placed mosquito control in North Carolina within the State Board of Health, and in his discussion Mr. White submitted for the Board's consideration, proposed rules and regulations governing State aid to mosquito control districts and other local governmental units engaged in mosquito control undertakings. After discussing these regulations, Mr. White, as Chairman of the Salt Marsh Mosquito program, recommended the adoption of the resolution. Dr. Baker moved the acceptance of the proposed rules and regulations relating to the allocation of State and federal aid to assist local governmental units in carrying out mosquito control projects. Motion seconded by Dr. Bugg, and unanimously carried. (Resolution filed in Minute Book)

Dr. Wm. M. Peck, Assistant Director of the Division of Epidemiology, reported briefly on public health responsibilities in radiation hazards. He pointed out certain potential radiological health hazards and their implications for control regulations and other control methods, particularly education. Recommendations made previously by the National Committee on Radiation Protection (National Bureau of Standards Handbook 61, issued December 9, 1955) were discussed in some detail. Dr. Baker moved that the North Carolina Radiological Society be invited and requested to set up a Committee to study radiation health hazards, and to suggest to the State Board of Health a framework of regulations to eliminate or minimize harmful exposure. Motion seconded by Dr. Bugg and unanimously carried.

Dr. John H. Hamilton, Assistant State Health Officer and Director of the Laboratory Division, presented a progress report on the Postmortem Medicolegal Examinations Committee. This law becomes an integral part of the public health code. Rules and regulations of the Committee are to be subject to the approval of the State Board of Health, effective January 1, 1958.

Secretary Norton read a letter addressed to him from Senator J. V. Whitfield, Chairman of the State Stream Sanitation Committee, regarding the setting-up and suggested duties and responsibilities of the Water Pollution Control Division and the Engineering Division in the field of stream sanitation, also a copy of a letter from Governor Hodges to President Dixon. These were discussed. President Dixon presented for the Board's consideration, a proposed plan of procedure in the administration of the State Stream Sanitation program within the Board of Health. After a full discussion, the Board adopted President Dixon's suggestions as constituting a good working program for the present time.

At 3.00 p.m. Senator J. V. Whitfield, Chairman and members of the State Stream Sanitation Executive Committee composed of Mrs. Karl Bishopric, Mr. Walter Clark and Mr. J. N. Vann, appeared for participation in the joint session with the State Board of Health. Mr. E. C. Hubbard, previously Executive Secretary of the State Stream Sanitation Committee, was unanimously agreed upon by the Executive Committee and the Board for the new position of Director of the Division of Water Pollution Control.

The State Stream Sanitation Committee is to determine policy and the State Board of Health is to administer this Division, effective July 1, 1957. The Board heard the discussion of the Executive Committee on the plan proposed in the letter, Whitfield to Norton, referred to above, and then President Dixon read the plan of procedure proposed by the Board of Health. This was discussed jointly by members of the Executive Committee and Board members. Dr. Baker moved that the resolution be adopted by the joint group—State Board of Health and State Stream Sanitation Executive Committee,—as read. Motion seconded by Dr. Bender. There was some discussion and Senator Whitfield said he did not feel his Executive Committee was prepared to take action then and that he would like to bring the matter before his entire Committee at a meeting in the near future. In a vote on the motion of Dr. Baker, the Board members favored and the Executive Committee (Stream Sanitation) abstained from voting. The Board delegated its Executive Committee to work out an agreement with the State Stream Sanitation Committee.

September 19, 1957. The North Carolina State Board of Health met in regular quarterly session Thursday, September 19, 1957. The Board assembled first in the Senate Chamber at the Capitol, where at 10:00 a.m., Associate Justice Emery B. Denny of the Supreme Court, administered the oath of office to both Mrs. J. E. Latta, Hillsboro, Rt. 1 (re-appointment) and to Lenox D. Baker, M. D., Durham (re-appointment) for four-year terms, expiring May, 1961.

Following the exercises in the Senate Chamber, the Board went into regular session in the Board Room of the Cooper Memorial Health Building.

President Dixon called the meeting to order at 10:30 a.m. He asked that Dr. Bender, the Vice-President, take the Chair. The first business of the meeting was to re-organize the Executive Committee which consists of a President, Vice-President and one member of the Board. The Board unanimously re-elected Dr. G. Grady Dixon as its President for a four-year term, ending May, 1961. Dr. Dixon then took the Chair and called for nominations for Vice-President. On motion of Dr. Baker, seconded by Dr. Morrison, Dr. John R. Bender was unanimously elected as Vice-President. On motion of Dr. Baker, seconded by Dr. Morrison, Dr. Charles R. Bugg was unanimously elected as a member of the Executive Committee. The Executive Committee now consists of Dr. Dixon, President, ex-officio, Dr. Bender, Vice-President, Dr. Bugg and Secretary Norton. It was also voted to make Dr. Baker an ex-officio member of the Executive Committee with the request that he attend as many meetings as possible. Dr. Baker explained, however, that his duties and activities as President-Elect followed by a year as President of the Medical Society of the State of North Carolina, together with his medical practice, would not leave him much time for other activities but he would promise to attend all the meetings he could.

Minutes of the Board meeting held on July 18, 1957, were approved as circulated to Board members by the Secretary.

*Progress report on radiation protection.* Dr. Wm. M. Peck of our staff presented Dr. Ernest Wood, Professor of Radiology of the University of North Carolina, to give a report of the action of the Committee appointed by Dr. Raper, President of the Radiological Society, to consider the problem

with Dr. Peck. Dr. Wood reported that at a meeting of the N. C. Radiological Society last week, recommendations were prepared as requested by the State Board of Health. These recommendations have been passed on to Dr. Norton through Dr. Sprunt's letter of September 17, 1957, which Dr. Wood read. (Dr. William H. Sprunt III, Secretary of the Radiological Society and Dr. Robert Reeves had hoped to be present but were unable to come.) This Committee thought very strongly that it would be advisable to avoid asking for new legislation in this field because they feel that the existing powers of the State Board of Health are quite sufficient to cope with the problem. The Committee specifically recommended certain individuals for the suggested Committee, although it is up to the Board as to whether or not they accept the individuals recommended.

Dr. Baker suggested that instead of a "member" of the State Board of Health the word "representative" be used so that either a member or a former member could be on the Committee. He moved that the recommendation be adopted by the Board with this change. Dr. Henderson seconded the motion. After Dr. Edwards' observation that the dental profession takes more X-rays than the medical profession, Dr. Baker amended his motion to include a representative from the State Dental Society on the Committee. Dr. Henderson seconded that motion, and it was carried. Dr. Norton was instructed to get in touch with the presidents of the State Dental and Medical Societies for a nomination by each Executive Committee for the Radiation Study and Advisory Committee of the State Board of Health.

Senator J. V. Whitfield, Chairman of the State Stream Sanitation Committee, was called on to give a progress report on the stream sanitation program. He reported that they have already classified the Yadkin, New River, White Oak, Roanoke and Chowan River Basins, and next month they plan to classify the French and Pigeon River Basins. In March they plan to classify Cape Fear River and sometime next fall the Neuse River Basin. That leaves Catawba, Tar and Pamlico Rivers. They will probably have the field work done on the Pasquotank and Catawba this fall, not later than the spring of 1959. Next year they will also do the field work on the Tuckasegee. They hope to have all the river basins classified by 1961 or not later than 1962, which will be a ten-year job completed. Mr. Whitfield also announced that they do not have enough room in this building and he has spoken for part of the third floor of the old Health Building.

Mr. J. M. Jarrett, Director of the Sanitary Engineering Division, presented a request for the extension of the boundary lines of the Walkertown Sanitary District, Forsyth County. He stated that all documents had been carefully reviewed and checked and that proper procedures had been followed in accordance with the requirements of the General Statutes for the extension of boundary lines. Mr. Jarrett recommended favorable action by the Board. On motion of Dr. Baker, seconded by Dr. Henderson, the request for extension of boundaries of the Walkertown Sanitary District, Forsyth County, was unanimously passed. (Copy filed in Minute Book)

In making his progress report on the poliomyelitis vaccination program, Dr. Fred T. Foard, Director of the Epidemiology Division, gave figures to show the number of doses already administered and the number of persons

who have received these doses for the first, second and/or third time. He stated that just now there is practically no demand for Salk vaccine injections but that he looked for a marked upsurge with further advance of fall. Also, Dr. Foard informed the Board that of the 177 poliomyelitis cases reported in 1957 through September 18, only 22 have been paralytic. In 1956, through September 18, a total of 206 cases had been reported with 99 of them paralytic. The decrease in the number of paralytic cases reported in 1957, to-date, as compared to the number of paralytic cases reported in 1956, to-date, is 77.8 percent.

Dr. Bugg suggested that all local health officers should be advised that now is the time to urge vaccination against poliomyelitis for next year, and that three injections must be given before the desired immunity can be expected.

The Board returned to discussion of the radiation program. Dr. Edwards moved that the Executive Committee of the North Carolina Dental Society be permitted to name their member of the Committee. Dr. Morrison seconded the motion, and it was unanimously passed.

Dr. Baker moved that the suggestion for this Committee be made as recommended by Dr. Wood, subject to the approval of the Executive Committee of the State Board of Health. Motion seconded by Mrs. Latta, and was unanimously carried.

Doctors Foard and Norton reported on the situation of the Asian Influenza strain and vaccine. Only 49 cases have been laboratory confirmed by our Laboratory as Asian Strain Flu. This is not representative of the prevalence of the disease in North Carolina, as it is not a reportable disease. No outbreaks have occurred but it is endemic quite widely throughout the State. Beginning this week, estimates will be made to the Public Health Service and each Health Officer has been asked to submit each week a report of the estimated number of flu-like diseases. These reports will be based on interviewing principals of schools on absentees because of flu-type diseases, by interviewing general practitioners, internists and pediatricians as to how many are seen in private practice, and by reporting on known conditions where a considerable number of occupational workers are out of their usual work because of a flu-like disease. There are not enough laboratories in the State to make laboratory examinations for confirmation of all cases occurring.

Dr. Norton attended the conference called by the Surgeon General of State and Territorial Health Officers. Prior to that a conference was called by the Surgeon General with representatives of the American Medical Association, American Academy of Pediatrics, American Academy of General Practice, and other groups. Early recommendations of the AMA and other groups with the Surgeon General was that there be no federal or state control, and that it be handled on a general understanding with the manufacturers that they would distribute the vaccine to the states on the basis of population. It was recommended by the earlier groups and by the State and Territorial Health Officers that first consideration, primarily encouragement, be given to those people who are responsible for looking after the health and medical care of people, physicians, dentists, nurses and other assisting personnel, and that second consideration and encourage-



ment be given to others whose absence would interfere with the carrying on of normal business activities, such as those who have charge of communications, transportation, and those who are taking care of property such as firemen, policemen, guards at the prisons, etc., and that the third group would be those who have had some chronic disease, particularly heart, chronic tuberculosis and other chronic diseases, and the very young and very old in whom complications are more frequent. This particular strain so far has been uniformly relatively mild all over the world. Dr. Norton attended a conference here of representatives of the State Medical Society, Mr. Barnes and Dr. Bugg who is also a member of our Board, the Budget Office, State tuberculosis hospitals, State Mental hospitals, State prison, State correction homes and the State Highway Patrol, and it was agreed that these State agencies would buy vaccine, which would cost around 35 cents each, just as they would buy raincoats, etc., for policemen and guards and others. He has also had conversations with people in charge of student health at Chapel Hill, State College, and hospitals other than those particular ones, and most of them are going ahead and putting in their orders. Also, the National Guard is going ahead with it so that they would not be handicapped in case of hurricanes or any other kind of emergency. Dr. Norton's suggestion to the Board would be that such an agreement by the Board would take care of what we are being asked for. The Executive Committee of the State Medical Society will meet Sunday and the matter will be brought up at that time to determine what the recommendation of the State Medical Society will be. Dr. Norton stressed home treatment of uncomplicated cases of flu, and recommended that sulfa drugs and antibiotics be withheld, since they have no effect on the flu virus, and should be reserved for complications, such as pneumonia, meningitis and other complications.

Dr. Foard commented on the administrative end of flu vaccine. He has been having calls from health officers as to whether or not they should obligate themselves to give this vaccine. The industries in particular are calling on the health officers to give it. He thinks this should be left as far as possible to the private physician. He has advised every health officer that it should be left entirely to the discretion of the local boards of health and the county health officers themselves.

Dr. Baker moved that the Board not establish any rule of priority but make every effort possible to encourage those people in strategic positions to take the vaccine. Motion seconded by Mrs. Latta, and was unanimous.

Dr. C. C. Applewhite, Director of the Local Health Division, was called on for a report on the chronic disease budget. The General Health Fund was increased by Congress by \$3,000,000 with a sort of quasi proviso that this extra money be used to stimulate state and local health departments to do something about the chronic disease and aged. Dr. Norton called the Division Directors together and asked them to submit projects for the \$113,000 allotted to North Carolina. The Directors submitted projects and Dr. Norton called the Directors together again to go over these projects. At the end of the meeting Dr. Norton appointed a Committee consisting of Dr. Hamilton, Dr. Foard and Dr. Applewhite, Chairman, to go over these projects to determine which ones would most come in line

with the intent of Congress. He had distributed to the Board members a memorandum listing these projects, which are merely recommendations because the Budget Officer is going to have to go over them and adjust figures in accordance with the work of other parts of the State Board of Health. Dr. Applewhite explained each of these projects.

Dr. Baker suggested that we look and see if we have heart funds for continuing and improving the program set up by the State Board of Health in the outpatient clinic at Duke Hospital, where 4" x 5" stereo chest X-ray films are filed in each patients' record. Last year through that unit about 18,000 X-rays were made. He recommended that the Board think along these lines not only at Duke but in our whole program.

Dr. Morrison recommended studying these projects more carefully, and Dr. Hamilton explained in more detail the laboratory projects.

Dr. Baker moved that, with Dr. Norton's approval, Board approval be given in general that the State Board of Health offices go ahead and search ways and means of using these extra funds in the most economical and best way. Motion seconded by Dr. Bugg, and was unanimous.

Dr. Baker brought up the fact that while discussing recodification of health laws, we took up those diseases for which we thought we should have compulsory vaccination. At the time polio was mentioned and it was agreed that there was not enough information to make any recommendations at that time. He thought it should show that at this meeting the effectiveness of polio vaccine was further discussed again and it was felt that it was a very effective means of controlling the paralytic phase of polio. We should give further consideration to the possibility of compulsory vaccination in the future, so that if we decide to make some request after this year's study and 1958 study, then in the 1959 General Assembly we should be able to give legislators better information as to why polio vaccination should or should not be made compulsory.

For information and discussion by the Board, Mr. Jarrett presented a descriptive leaflet and research report on a new glasswasher and sanitizer developed by the Kidde Manufacturing Company, Inc., Bloomfield, N. Y. for use in taverns, restaurants, etc. Mr. Jarrett stated that this material and report had been carefully studied by his division. The Kidde Glasswasher and Sanitizer has been developed over a period of five years and is now on the market following tests in New York City, Pittsburgh, and conclusive tests in the School of Public Health Engineering at the University of Michigan with final acceptance and approval of the National Sanitation Foundation. Also, he believes that this device is acceptable in view of the extensive tests made and the approval of the NSF. Mr. Jarrett stated that our restaurant sanitation regulations concerning this item will require no charge since they now read as "where it is deemed necessary, mechanical glass and dishwashing equipment shall be required and such equipment shall meet National Sanitation Foundation standards or equal." There was no objection raised to the use of this machine. No official action was necessary.

Mr. E. C. Hubbard, Director of the Water Pollution Control Division, was present but he had no report. However, it was suggested by Dr. Dixon that since all divisions and section chief of the State Board of



Health make monthly reports of activities to the Board members, that his Division report along with all others. Mr. Hubbard stated that this request would be gladly complied with. Dr. Dixon also instructed Dr. Norton to notify the Chairman of the State Stream Sanitation Committee that he is invited to all State Board of Health meetings.

For information, copies of correspondence was given to each member of the Board relative to policies, etc. from the Attorney General's office to Sen. J. V. Whitfield, Chairman of the State Stream Sanitation Committee, at various times, regarding clarification and duties of the newly created Division of Water Pollution Control and the Sanitary Engineering Division as enacted by the 1958 Legislature.

Secretary Norton announced the receipt of a new film on Asian Influenza. He was prepared to have the picture shown, but due to lack of time this was not done.

**December 5, 1957.** A regular quarterly meeting of the North Carolina State Board of Health was held Thursday, December 5, 1957, beginning at 11:00 a.m., in the Board Room of the Cooper Memorial Health Building, with President Dixon presiding.

Upon motion of Dr. Henderson, seconded by Dr. Bugg, the minutes of the meeting held on September 19, 1957 which had previously been circulated to Board members, were unanimously approved without further reading.

Dr. Fred T. Foard, Director of the Epidemiology Division, gave a report on the poliomyelitis vaccination program in North Carolina. He stated that the polio vaccine, at the present time, was being distributed very slowly. Of the total vaccine purchased for North Carolina under Federal program of 3,435,975 ccs. there is 144,486 ccs. at the Laboratory of Hygiene which would become out-dated in January. Local Health Officers, through several letters, and the public, through news releases, have been urged to use the vaccine but there seems to be a decrease in the demand. Dr. Foard reported also that of the 213 poliomyelitis cases reported in 1957 through December 4, only 40 have been paralytic. In 1956 through December 4, a total of 299 case had been reported, with 151 of them paralytic. With approximately 100,000 ccs. of polio vaccine becoming out-dated in January, 1958, he asked that the Board consider how to dispose of the supply of vaccine left on hand. Dr. Lenox D. Baker moved that the Board authorize Secretary Norton, through Dr. Foard, to dispose of the surplus vaccine in any manner to the best interest of our people and in a manner through which it would do the most good. Motion seconded by Dr. John R. Bender, and passed unanimously. Also, Dr. Foard informed the Board that he had placed an order for 452,000 ccs. poliomyelitis vaccine, but it was not to be shipped until notified by the State Board of Health to do so.

Dr. Jacob Koomen, Jr., Assistant Director of the Division of Epidemiology, reviewed the present status of influenza and influenza vaccine in North Carolina. Approximately 550,000 cases have occurred since onset of the outbreak in late September. The "peak" of the epidemic, 150,000 cases reported per week, was seen in the last week in October and the first week in November. In the past week 13,000 cases were reported. The State Laboratory of Hygiene has processed 1,455 blood specimens of which 477 have

shown measurable antibody to Asian influenza virus. Several Asian virus isolations have been made.

To-date, U. S. influenza vaccine manufacturers have produced 51,655,589 ccs. of vaccine; approximately 38.5 million ccs. have been shipped to the various states. North Carolina with allotment of 2.6% has received about 750,000 ccs. Dr. Koomen briefly discussed the problems concerning concentration of virus in the vaccine, route of administration, dosage and schedule of inoculations. The present recommendations were reviewed. Also, Dr. Koomen summarized by pointing out the iniqueness of the epidemic in that a new strain of virus, Asian strain, was involved and that for the first time some vaccine of the specific type, was available before the outbreak reached epidemic proportions. While generally the disease continues to be relatively mild, some deaths have occurred.

In making a report on responsibilities and authorities in stream sanitation between the Divisions of Water Pollution Control and Sanitary Engineering, Mr. E. C. Hubbard, the Director, called attention to the memo issued by Secretary Norton on October 28, 1957, dividing responsibilities for both divisions. This was presented to the Stream Sanitation Committee at a special meeting on October 29 and was approved unanimously. Since that time, Mr. Hubbard, Mr. Jarrett and Dr. Norton have agreed that certain changes will improve this division of responsibilities. Mr. Hubbard read both changes, one on page 2, the other on page 3 of the October 28 memo. Mr. Jarrett agreed that these changes would be an improvement, especially from the viewpoint that it was the stated intent of the Legislature to eliminate duplication in the transfer of these activities to the State Board of Health. Mr. Jarrett pointed out that this is not the answer to all administrative problems that might eventually come up, and that they will still need help from the Board and Dr. Norton in separating an activity much of which for so many years has been a responsibility of the Sanitary Engineering Division.

Dr. Baker moved that, for the present, and "not as an interpretation of the law and not setting a precedent", that the Board approve the recommendations made by the memo of December 5 concerning separation of the responsibilities and authorities between the Water Pollution Control and Sanitary Engineering Divisions. Motion seconded by Dr. Henderson, and unanimously passed.

Secretary Norton distributed to the Board members a copy of a proposed draft of a statement that he had prepared at the Governor's invitation for the North Carolina State Board of Health to be submitted to the Subcommittee on intergovernmental Relations, U. S. House of Representatives, Hon. L. H. Fountain, Chairman, in Raleigh, December 10-12, 1957. This was read and discussed. Mr. Hubbard also presented a draft of statement which he had prepared for Dr. Norton concerning the administration of the Federal Water Pollution Control Act and Grant Programs authorized by the Act. After discussion, on motion of Dr. Baker, seconded by Dr. Bugg, the Board unanimously approved the Statement for presentation to the Subcommittee on Intergovernmental Relations.

In discussing the "Third Party Encroachment on Private Medical Practice", it was agreed that the letter originating from Professional Manage-

ment is a \$5,000 survey by the Medical Society of the State of North Carolina and not necessarily intended to be critical, and since there are no specific charges against the State and Local Boards of Health, Dr. Baker moved that discussion of this question be deferred until some specific charge is directed at the State or Local Boards of Health. The motion was seconded by Dr. Bugg and carried unanimously.

Secretary Norton reported that the State Board of Health has been losing members of its staff here, and also local health officers, because they are going to higher paying positions. He cited Dr. Cameron as an example. Dr. Cameron used to be full-time here at the State Board of Health and went over to the University, with one day a week here. Dr. Baker moved that Dr. Norton be authorized to take necessary steps in any cooperative program that he sees fit for aiding in keeping the Department well staffed. Motion seconded by Dr. Bender, and was unanimous.

Dr. Norton discussed a directive issued by Mr. Wilson, former Defense Secretary, just before he left office, discontinuing the Veterinary corps in the Armed Forces. Dr. Edwards moved that the Board look with disapproval on the action and that a letter expressing this be sent to Secretary Neil McElroy with copies to our North Carolina Congressional Delegation. It was seconded by Dr. Baker, and carried unanimously.

Dr. Wm. M. Peck presented a progress report on Radiation Protection, including work of the Study and Advisory Committee. Progress has been made in obtaining equipment and training personnel. Considerable equipment is on order and some has been promised from Civil Defense. Dr. Peck reported. Civil Defense is also considering the possibility of paying half the cost of the equipment on order. With reference to training, a course is being given in nuclear physics every Monday night at State College, a joint course between the State Board of Health and the School of Public Health at Chapel Hill is planned, and the Sanitary Engineering Division is embarking on a training program. Dr. Peck read the list of eleven members of the Radiation Study and Advisory Committee with Dr. Robert Reeves of Duke as temporary Chairman of the Committee. Dr. Edwards is a member representing the State Board of Health.

Miss Mae Reynolds, Budget Officer, gave a brief report on the budget. This year the total state, federal and local budget is a little less than eleven million dollars. The counties are putting up more than five million dollars and are in need of additional State aid. We are hoping that the counties will begin now to alert their legislators to the needs, so that when they come to Raleigh they will come prepared to vote for it. There are three problem funds, the allotment of \$113,500 for chronic diseases, which came late in the year and is not going full blast yet, mental health which cannot get people to staff the clinics, and heart. Dr. Elliot has been using heart money largely for seminars at Bowman Gray and Duke for the doctors helping in some of the clinics already established, and one clinic connected with the health department and run by doctors at Sylva. Miss Reynolds said that we are very proud of the clinic at Sylva and wish that more doctors were interested in the heart program and would get more clinics started.

Dr. Dixon reported to the Board that Mr. George B. Cherry, Director of General Services Division of the State, had assured him that contracts

have been completed for air-conditioning the Health Building and that the work would be finished by spring.

Dr. Norton introduced to the Board Dr. Bernard F. Rosenblum, V. D. Control Officer and Dr. E. A. Pearson, the Assistant in the Oral Hygiene Division.

February 7, 1958. A meeting of the North Carolina State Board of Health was held on Friday, February 7, 1958, at 12:30 p.m. in the Board Room of the Cooper Memorial Health Building. The meeting was presided over by Dr. John R. Bender, Vice-President, in the absence of the President, Dr. G. Grady Dixon, who called on Dr. Edwards to open the session with prayer.

Dr. Henderson moved that the minutes of the Board meeting held on December 5, 1957, be approved as circulated to Board members. Motion seconded by Mr. Lutz, and carried.

Dr. Fred T. Foard, Director of the Division of Epidemiology, gave a progress report on the poliomyelitis vaccination program in North Carolina. According to the latest reports from counties through January 25, 1958, 3,019,908 inoculations had been given. They include 1,214,904 first inoculations; 1,056,890 second and 748,114 third. The figures are on children under 20 years of age and expectant mothers of all ages as done by or through local health departments with vaccine purchased from Federal Funds. Of the 231 poliomyelitis cases reported in 1957, as of December 31, only 51 were paralytic. In 1956, through December 31, a total of 315 cases had been reported, with 162 paralytic and for the period 1952 through 1956 there was an average of 233 paralytic cases annually. Dr. Foard stated the Laboratory has about 63,261 ccs. of vaccine and that most of the health directors were using it. Also, he reported that North Carolina's citizens are "about as well vaccinated" against poliomyelitis as any other State, but we should push the program of immunization vigorously between now and the 1958 polio season.

Secretary Norton recognized Dr. C. C. Applewhite who has been Director of the Local Health Division for nearly nine years, having come to this position from 34 years with the USPHS. Dr. Applewhite, who resigned his position effective as of January 31, 1958, expressed his sincere thanks for the welcome and cooperation given him throughout the State. The Board of Health regrets to lose Dr. Applewhite due to retirement, and the members expressed appreciation for his loyal and effective services.

Secretary Norton reminded that "G.S. 130-9 provides that the Board is required to hold public hearings prior to the adoption of any rule or regulation. Therefore, he suggested that before the Board adopts any rule or regulation the President of the Board announce that the Board is about to consider the adoption of regulations concerning so and so, and that the Board meeting be announced as a public hearing for the purpose of receiving the views of any persons concerning the proposed regulations . . . ."

Dr. Bender then declared the meeting to be a public hearing in accordance with Section 130-9 of the General Statutes for the purpose of discussion of proposed rules and regulations governing the manufacture of bedding and for the allocation of funds under the Salt Marsh Mosquito Control



program. Both these items have been discussed fully with the people closely concerned with these matters.

Mr. J. M. Jarrett, Director of the Division of Sanitary Engineering, presented rules and regulations governing: the sanitizing of mattresses previously-used materials, second-hand bedding, and bedding containing previously-used materials; the storage of previously-used materials, the issuance of stamp exemption permits; and the transfer of manufacturer's licenses and sanitizer's licenses. These rules and regulations had previously been forwarded to each member of the Board. They were discussed by Mr. Jarrett and members of the Board. Dr. Baker moved, seconded by Dr. Henderson, that the RULES AND REGULATIONS GOVERNING SANITIZING OF MATTRESSES, PREVIOUSLY-USED MATERIALS, SECOND-HAND BEDDING, AND BEDDING CONTAINING PREVIOUSLY-USED MATERIALS: THE STORAGE OF PREVIOUSLY-USED MATERIALS: THE ISSUANCE OF STAMP EXEMPTION PERMITS: AND, THE TRANSFER OF MANUFACTURER'S LICENSES AND SANITIZER'S LICENSES, as amended by the 1957 General Assembly be adopted. Motion carried. (Copy filed in Minute Book)

Mr. Charles M. White, Chief of the Insect-Rodent Control Section, was present and presented rules and regulations to replace those adopted by the Board on July 18, 1957 governing the allocation of State funds received by the State Board of Health to aid mosquito control districts or other local governmental units engaged in mosquito control projects. These rules and regulations also had previously been forwarded to the members for their review and study. These regulations were discussed by the Board members with Mr. White. On motion of Dr. Baker, seconded by Dr. Bugg, RULES AND REGULATIONS GOVERNING STATE AID TO MOSQUITO CONTROL DISTRICTS OR OTHER LOCAL GOVERNMENTAL UNITS ENGAGED IN MOSQUITO CONTROL UNDERTAKINGS, were unanimously adopted. (Copy filed in Minute Book)

Mr. E. C. Hubbard, Director of the Water Pollution Control Division, presented a report covering an investigation of the need for sewer extension and sewage disposal facilities in the Town of Jonesville, North Carolina, together with a resolution from the Town requesting that the State Board of Health issue an Order requiring said municipality to install the necessary facilities. In presenting the request, Mr. Hubbard stated that insanitary conditions exist due to inadequate sewage collection and disposal facilities and that these conditions had been thoroughly investigated and studied. In view of these findings, he recommended that the Board adopt the necessary resolution ordering Jonesville to install necessary sewer extensions and to provide adequate sewage disposal facilities. On motion of Dr. Baker, seconded by Mrs. Latta, a resolution ORDERING THE TOWN OF JONESVILLE, NORTH CAROLINA, TO MAKE NECESSARY SEWERAGE AND SEWAGE DISPOSAL IMPROVEMENTS, was unanimously adopted. (Copy of Resolution filed in Minute Book)

Mr. Hubbard also presented a report covering an investigation of the sewage disposal facilities in the Town of Norwood, North Carolina, together with a resolution from the Town officials requesting that the State Board of Health issue an Order requiring the Town to proceed with the design and construction of adequate sewage treatment facilities. He further

pointed out that such facilities are necessary for the prevention of excessive pollution of waters into which the treated wastes are to be discharged and that an Order from the State Board of Health would be necessary to permit the Town to finance proposed sewage treatment works. On motion of Dr. Baker, seconded by Dr. Henderson, a resolution was unanimously adopted ORDERING THE TOWN OF NORWOOD, NORTH CAROLINA, TO CONSTRUCT AND PUT INTO OPERATION AN ADEQUATE SEWERAGE AND NECESSARY SEWAGE TREATMENT FACILITIES. (Copy of Resolution filed in Minute Book)

Dr. Z. L. Edwards and Dr. William M. Peck, members of the Advisory Committee to the State Board of Health on Radiation Protection, made brief reports on a meeting held in Durham on Sunday, February 2. They reported that the discussions were interesting and that the assignment deserves and requires serious study before the subject comes for intelligent and concrete recommendation. Dr. Robert Reeves, Professor of Radiology, Duke University, was elected Chairman. Two subcommittees were appointed—one on X-ray and another on isotope radiation.

Dr. Jacob Koomen, Jr., Assistant Director, Division of Epidemiology, reported briefly on the Asian Influenza situation. There seems to be a slight recent increase in influenza cases but no large outbreaks, he said. Vaccination against Asian Influenza as a protective measure continues to be recommended. He pointed out the increase in the death rate from pneumonia and influenza, especially pneumonia, in the age group of 65 years and older as much in some areas as three times that for the previous three year average.

For consideration of the Board, Secretary Norton presented some samples of slogans for a stamp or plate to be used on envelopes of the State Board of Health. They will be printed by the postage meter in the same operation with the stamp and postmark. He pointed out that a good many health departments and private firms are using this method of educating the public to the value of their services—at a cost of approximately \$15.00 per plate—which are easily interchangeable. Dr. Baker moved, seconded by Dr. Edwards, that the Board approve the plan to attach to the mailing machine a plate bearing some type of a public health slogan. Motion carried.

Miss Mae Reynolds, Budget Officer, explained the change in budget preparation for the new biennium, according to instructions sent out by the Budget Bureau. The budgets will be in two sections: the (A) or Continuation budget is for continuing programs at the current level. This budget is to be submitted by March 1, 1958. The (B) budget will carry improvements, expansions and salary increases, and is to be submitted by May 1, 1958.

Secretary Norton made a brief report on the printing of the compilation of revised Public Health Laws, Rules and Regulations, and of the need of getting them together and incorporating them in a reprint. Dr. Edwards moved, seconded by Dr. Bugg, that this reprint of Public Health Laws and related statutes, be left to the discretion of the Secretary. Motion carried.

Dr. Norton reported on the Automotive Crash Injury Research Project being conducted in North Carolina by Cornell University Medical College. He spoke particularly in regard to automobile crash injury and deaths, and



stated that Cornell had been requested by two motor manufacturers asking that they be allowed to have information that had been gathered through these investigations that might assist in making justified safer changes in the designing for more and better safety in automobiles. He pointed out that the Motor Vehicles Bureau had approved the use of their information with the understanding that no place, physician or individual in North Carolina could be identified; also, that the matter had been brought to the attention of the Executive Committee of the Medical Society of the State of North Carolina on January 26 and that they approved accordingly. Dr. Baker moved, seconded by Dr. Henderson, that approval of releasing this impersonal and objective information for the purpose of improving safety in the manufacture of automobiles be granted. Motion carried.

Dr. Norton discussed the change in the law relative to the conjoint meeting of the State Board of Health with the general session of the Medical Society of the State of North Carolina at a time and place designated by the State Board of Health and the Program Committee of the Medical Society, and asked if there was any preference as to time. On motion of Dr. Baker, seconded by Mrs. Latta, the matter will be left to Dr. Norton, Dr. Dixon and the Chairman of the Program Committee. Motion carried.

The Secretary made a brief report on the Civil Defense Survival Plan. He stated that plans were being worked out as to what vital records, Board minutes and equipment should be carefully protected and moved to a place of greater safety and use in case of an emergency. Also, he commended Dr. Charles B. Kendall on the good work he has done on preparing the State Board of Health's Civil Defense Plan.

Dr. Norton reported on the Health Officers' Conference held at Chapel Hill, January 24, 1958. He stated that much of the time was taken up on briefing regarding changes in Public Health Laws by the last General Assembly, and paid tribute to Mr. Roddey Ligon, Assistant Director of the Institute of Government for the excellent job he had done in explaining the revisions. Due to the bad weather which kept many local health directors away Dr. Norton said there probably would be other meetings of this nature in the near future.

Secretary Norton presented for discussion a proposal to change Nutrition Section to a Division status. There was much discussion, but it was the consensus of the Board that the Section should remain unchanged at least for the present.

The Governor's Conference on Occupational Health, held in Chapel Hill on February 6, was discussed by Dr. Norton. He stated that the Conference was well attended and very interesting. It has as its objective the bringing together of a group of leaders in industry, business, labor, the medical profession, and state officials who are concerned with exploring more effective ways of providing occupational health protection in North Carolina.

The Secretary called the Board's attention to the matter of a full-time Assistant State Health Director as provided for in the revision of our Public Health Laws passed by the General Assembly of 1957. He pointed out that such a person should be a young physician, experienced in public health work, and familiar with North Carolina. In speaking of

the need for such a position, Dr. Norton paid high tribute to Dr. John H. Hamilton who has been serving part-time in this capacity since January 19, 1951. Dr. Hamilton has been carrying this "load" in addition to his many other duties and responsibilities. After a full discussion, Dr. Edwards made a motion that the Executive Committee, with Dr. Norton, be instructed to select a candidate for Assistant State Health Director, and then recommend the candidate to the full Board and the Governor. Motion seconded by Dr. Baker, and carried unanimously.

Dr. Robert D. Higgins who has been Assistant to Dr. Applewhite in the Local Health Division since February 1, 1957 was present. Dr. Higgins was welcomed to the "official family" and is to carry on as Director of the Local Health Division.

May 7, 1958. The State Board of Health and the Medical Society of the State of North Carolina met in Conjoint Session, Wednesday, May 7, at 9:00 a.m. in the Sun Dial Room of the George Vanderbilt Hotel in Asheville, N. C., Dr. G. Grady Dixon, presiding.

Upon motion of Mr. Lutz, seconded by Dr. Baker, the minutes of the last Board meeting, February 7, 1958, which had been circulated, were approved.

Dr. J. W. R. Norton, State Health Director, then made a report on the Governor's Advisory Committee on Poliomyelitis Vaccine. He informed the Board that there had not been a meeting of this Committee since June 21, 1956, but that the members had been kept advised on all developments.

Dr. Norton advised the Board of the State Medical Society's official decision to ask the next Legislature to make vaccination against poliomyelitis compulsory. On motion of Dr. Bugg, second by Mr. Lutz, the following resolution was unanimously passed:

"WHEREAS, the House of Delegates of the Medical Society of the State of North Carolina, upon recommendation of the Executive Council, voted, without dissent or discussion, to ask the next General Assembly to make compulsory the vaccination of all children between the ages of two months and six years against poliomyelitis; therefore, be it

"RESOLVED, That the North Carolina State Board of Health pledge its support of such legislation and its strict enforcement."

Under the head of new business, Dr. Norton made a report on the State Board of Health's activities during the recent influenza outbreak at Ocracoke.

Dr. Norton then reported on a conference held March 26 concerning visual screening of school children in the Board Room, at the request of the Governor's Office. This conference was attended by representatives of the Board of Education, Board of Health, Medical Society of the State of North Carolina, Commission for the Blind, the Motor Vehicles Bureau and the North Carolina Optometric Society. Officials of the last named group had requested a conference with Governor Hodges. Officials of the Optometric Society discussed some work done in Onslow County (reported in State Magazine November 16, 1957, page 17), the study made by the Psychology Department of State College with a \$30,000 grant from the State Optometric Society and proposed that visual screening of school children utilizing optometrists be extended throughout the State. The Optometric Society officials were requested to submit their detailed proposals in writing to the Governor's Office and to the agencies represented

at the conference for further consideration. So far this request has not been complied with.

Dr. Norton made a report on the refinement and dependability of tests for intoxication. He also reported the employment of Mr. Ben Eaton, Jr., on April 28, 1958, as Director of Administrative Services in the State Health Department.

On motion of Dr. Bender, seconded by Dr. Bugg, the North Asheboro-Central Falls Sanitary District was extended. (Copy of Resolution filed in Minute Book)

On motion of Mr. Lutz, seconded by Dr. Bugg, the Catawba Heights Sanitary District was extended. (Copy filed in Minute Book)

A resolution was adopted permitting certain recreational uses of water supply reservoirs of Raleigh, Lexington and Reidsville. Motions concerning uses of water supply reservoirs were made and seconded as follows: Raleigh—Dr. Bugg, Dr. Bender; Lexington—Dr. Bugg, Dr. Bender, and Reidsville—Mr. Lutz and Dr. Bugg.

Although he presided over the Conjoint Session of the State Board of Health and the Medical Society of the State of North Carolina, this was the last meeting of the State Board of Health over which Dr. Dixon presided. His death occurred within a matter of hours after he left Asheville about three o'clock riding with Dr. A. M. Mumford of Winterville and was stricken as the car approached Hickory. He died in the ambulance on the way to the hospital there. He probably served longest on the Board of any member (1931-1958) since its formation in 1877.

On motion duly made and seconded, the meeting adjourned at 10:00 a.m.

## CONJOINT REPORT \*

By JOHN H. HAMILTON, M.D.\*\*

In order to visualize the public health program in North Carolina one must realize that it is primarily local health departments which perform a major portion of the work and that the State Board of Health plays a secondary but important role. Whether this importance of the local health department is traditionally due to the place which counties and municipalities occupy in North Carolina's plan for government or whether it is due to the vision and foresight of the men who laid the foundation for public health work in the State is a discussion into which we will not enter here.

Beginning in 1877 Dr. Thomas Fanning Wood worked diligently to set up a plan whereby county boards of health would lead the way. Upon his death in 1892, Dr. Richard H. Lewis continued to lay a firm foundation. He was succeeded in 1909 by North Carolina's first whole-time State health officer, Dr. Watson S. Rankin, who after he took office persuaded the next General Assembly to enact a law providing for whole-time county health work. We in North Carolina claim that Guilford County had the first whole-time county health department in the United States, being established June 1, 1911. It was not until 1949 that all of the one hundred counties in North Carolina had a whole-time health program. Today over \$6,600,000 are expended annually by local departments of health. That the people themselves believe in local health work was shown by the fact that the sum of nearly \$5,000,000 is appropriated by boards of county commissioners and city governing boards while \$1,132,000 is appropriated by the General Assembly of North Carolina to be used entirely for local health work; and that only \$280,000 comes from the Federal Government to assist in this program. Public health work should be a partnership in which federal, state and local funds are used. It is easy to see, however, that the federal government is a poor partner. What they term "Grants-in-Aid" is generally interpreted as a gift. This term should be revised to read "A Partial Payment of Our Obligation." The State of North Carolina has not increased its participation in the local health program since 1949, although since that date local governments have increased their participation by \$2,000,000. The work performed by the local health departments is large and varied. For details please study the reports of your own local department. The medical profession is represented on each board of health in North Carolina. We as physicians, therefore, have a definite responsibility. The question naturally arises, are we as interested in or as dedicated to this responsibility as we should be?

The State Board of Health's place in North Carolina's Health Program is primarily that of consultant, although we do render some direct service.

To carry out the policies of the State Board of Health, a staff is employed which for administrative purposes works as divisions under the supervision

---

\* Presented before the Conjoint Session of the Medical Society of the State of North Carolina and the State Board of Health, Asheville, May 8, 1957.

\*\* Assistant State Health Officer.

of the Secretary and State Health Officer who is the Director of the *DIVISION OF CENTRAL ADMINISTRATION*.

*The Publicity Officer* prepared and transcribed 104 weekly radio programs in addition to getting out numerous news releases and announcements.

*The Central Files* received and filed 209,462 records and made over 36,000 searches for material and information.

*The Mailing Room* sent out almost two million forms and pieces of literature.

*The Multilith Section* processed more than 4,000,000 copies of printed matter.

*The Film Library* accepted bookings and distributed a total of 12,795 films in 8,788 individual shipments.

*The Medical Public Health Library* added 229 books to the Library, reported 3,704 visits and loans of 1,682 books and bound volumes of medical journals.

*The Personnel Department* reported that within the State Board of Health there were 139 appointments and reinstatements and 128 separations. In local health departments there were 483 appointments and 385 separations.

#### *The Budget Office*

The following is a comprehensive statement of amounts budgeted for the fiscal years of 1954-55 and 1955-56:

	1954-55	1955-56
State	\$2,461,405	\$ 2,553,693
Federal	1,813,408	2,845,401
Special Accounts	182,373	292,541
Local	4,218,040	4,704,544
Totals	\$8,675,226	\$10,396,179

*THE DIVISION OF EPIDEMIOLOGY* rendered valiant service in connection with the poliomyelitis vaccination program. Federal money appropriated for the purchase of poliomyelitis vaccine made it possible for us to distribute enough vaccine for 1,428,000 inoculations.

In the field of *Communicable Disease Control* a watchful eye was kept on our old problems, many of which—including typhoid, malaria, and diphtheria have almost disappeared from the scene. Investigations were made of several of the rarer diseases. Of particular concern was encephalitis and aseptic meningitis.

In the field of *Veneral Disease Control* considerable effort was expended and much good was accomplished, although we can report only slight decreases in their prevalence.

*The Veterinary Public Health* Section continued to make very encouraging progress in those diseases primarily of animals and secondarily of man. Now only in the Northwestern part of the State would we consider rabies endemic, and that is primarily fox rabies rather than dog rabies. Psittacosis continues to be worrisome. Industrial anthrax contributed 8 human cases during the year. There were two unusual outbreaks of trichinosis. Leptospirosis, frequently confused with infectious hepatitis, is being more widely recognized.

*The Public Health Statistics Section* continues to handle large numbers of morbidity reports, birth and death certificates, supplying certified copies,



computing rates and analyzing data—thus supplying public health with a pulse respiration and temperature chart for many of our public health problems.

*The Tuberculosis Control Section's* chief activity is the operation of Mobile X-Ray Units, taking miniature films of 228,000 people.

*The Occupational Health* activities have increased during the year with the prospect of definite accomplishments in 1957.

*The Accident Prevention Section* is dedicated to the prevention of home and farm accidents of which 784 residents of North Carolina died in 1956. Unless the present General Assembly provides additional funds, this useful activity is in danger of being discontinued as of July 1.

*PERSONAL HEALTH DIVISION* in the field of Maternal and Child Health reported 4,609 clinic sessions which rendered assistance for 34,000 maternity cases and 53,000 infants and pre-school children.

*For Crippled Children* there were more than 10,600 visits to the Orthopedic Clinics, resulting in the purchase of 1,318 appliances for 889 children.

*The Heart Program* consisted primarily of providing refresher courses for physicians in electro-cardiography and the distribution of Heart Bulletins to general practitioners.

*The Cancer Control Program* was continued in all 13 of the Detection Clinics, resulting in the examination of approximately 12,700 patients, about half of which were referred to their private physician for one cause or another. One hundred forty three (143) were diagnosed as having cancer. Under the Cancer Treatment Program for medically indigent, there were 328 hospitalized.

That the activities in the field of *Nutrition* are definitely worthwhile is attested by the increase in demand by local health departments and state institutions for the services of our nutrition staff.

*OUR DIVISION OF SANITARY ENGINEERING* reports that their Engineering Section approved 52 water improvement projects to cost \$11,000,000; 40 projects for sewage treatment plants or extensions to sewage works to cost nearly \$9,000,000; and 15 combined water and sewage projects amounting to \$2,000,000 or a total cost for approximately 107 projects of more than \$22,000,000.

The Sanitation Section rendered service to all of the local health departments, including a wide variety of services. Courses of instruction for food-handlers were given in 15 counties.

*The Insect and Rodent Control Section* was active. The effectiveness of this program is shown by a marked reduction in the prevalence of murine typhus. Sanitary landfills for garbage disposal were approved for 35 communities.

*The Salt Marsh Mosquito Study Commission* completed its survey, study and evaluation of the Salt Marsh Mosquito Problem in Eastern North Carolina and submitted a report to the Governor.

*THE LOCAL HEALTH DIVISION* reports marked progress in 1956. Health officers, nurses, and sanitarians were recruited and training provided. Ten new health centers have been completed and occupied bringing the total in the State to 66. These were financed under the Hill-Burton Act.



As of December 31, 1956, there were 1,222 full-time budgeted positions in our local health departments, an increase of 38 over the previous year. There were, however, 60 vacancies. It is difficult to recruit capable young people at salaries which government will pay. When we can offer these young people scholarships for advanced training, the obstacles to recruitment are reduced.

Progress in *Mental Health* is encouraging. The addition of new mental health clinics and the strengthening of those which already exist offers hope that we can decrease the flow of patients into mental hospitals.

While the *Public Health Nursing Section* devotes a major portion of its time in consultation with local health departments, it is not neglecting staff education or field training for undergraduate nurses.

*Public Health Education Section* offers another consultant service to local health departments and has assisted many of them in the preparation of their educational programs, including the designing of exhibits and the drafting of pamphlets.

*School Health Coordinating Service* operated by the State Board of Public Instruction and the State Board of Health continued to work in much the same way as it did in 1955.

*THE ORAL HYGIENE DIVISION* provides for the children in the elementary schools—health education and dental inspections, corrections for the underprivileged, and referrals to private practitioners for the others. These services are rendered by a staff of school dentists assigned to the local health departments on a fund matching basis. A supporting service is: a dental health puppet show.

Toothaches, missing teeth, and other sequelae of dental caries are not inevitable. That is, they are not inevitable if we succeed in persuading people to use preventive practices.

Our dentists gave a total of 2,144 lectures to 82,742 school children; extracted 4,482 six year molars and filled 9,000. Thirty six thousand (36,000) children were referred to their local dentists; attendance at puppet shows was 163,000.

Only six of our 100 counties have dentists on the staff of the local health departments.

*STATE LABORATORY OF HYGIENE*—The year 1956 was the forty-eighth year of service which the State Laboratory of Hygiene had rendered to the people of North Carolina. If measured by the volume and quality of service provided, it was a good year. A total number of 484,891 laboratory examinations were made and a large volume of biological products were distributed. This service was rendered to physicians, health departments, hospitals and state institutions. The number of each type of laboratory examination gives a fairly accurate index of health problems as they exist today.

A new activity is of *Virus Isolation and Identification*.

We hope to expand our services in the field of *Cancer Cytology*.

On July 1, 1957 we hope to have a bond-burning program in which the last of the \$160,000 self-liquidating bonds, issued in 1937, will have been retired and the laboratory will again be free from bond debt.

Detailed tabulations of activities will be found in the Biennial Report of the State Board of Health in which we give an accounting of our stewardship. Here we have given only a small sample of the work actually performed.

Health officers or health directors are physicians to the communities which they serve. They have the responsibility of diagnosing ailments of their patient, the community. The methods of making the public health diagnosis may be different from those of the private practitioner but their importance is not less. The health director and his staff need not render all of the service which his patient, the community, needs. He, like the private practitioner, can write prescriptions and hand out advice to other people who can render the needed service. Very frequently the physician to the community and the physician to the private patient need to confer. They have common problems. One of these is the problem presented by the aging population. It is important that the public health profession and the private practitioners develop swiftly some mutually accepted principles and plans for the inseparable fields of aging and chronic illness. This needs to be done locally as well as regionally. The needs of one community can be vastly different from the needs of another. One community may need a convalescent or chronic disease hospital—in another it would be utterly impracticable. The problem of the cost of hospitalization is almost universal. What should be our attitude toward boarding homes, nursing homes and visiting nurses or bedside nursing service? Who is to be responsible for the administration or supervision of such agencies, if we have them? These are only a few of the many problems. We as physicians, whether in the preventive or therapeutic field, should face up to these questions. If we do not, we should not complain if private agencies or big government be calling the signals. By working together with a sympathetic understanding of each others responsibilities the physician in therapeutic medicine and the physicians in preventive medicine can render their best service to the people of North Carolina.

## A DECADE OF PUBLIC HEALTH ADJUSTMENT IN NORTH CAROLINA \*

By J. W. R. NORTON, M.D., M.P.H., F.A.C.P.\*\*

In many ways we find ourselves now faced with a situation similar to that presented a half century ago by communicable diseases rampant in communities unprepared for the crowding conditions. Medical leaders, particularly those familiar with and responsive to public health responsibilities, recognized the situation as intolerable. They, along with women leaders and business and industrial leaders, proceeded to do something about it. Research and its prompt and wide application were supported. Tuberculosis, pneumonia, the filth-borne intestinal diseases and insect spread diseases along with maternal and infant-childhood cripples and killers were brought under relative control.

Today an equally intolerable situation exists in our deaths, our crippling and staggering economic burden from diseases of the heart and blood vessels, cancer, arthritis, obesity, diabetes, nephritis, accidents and mental disorders. Most viral infections are unresponsive to present miracle drugs and staphylococcal and other serious disorders may follow the use of some.

Coordinated, intelligent, and unselfish teamwork was effective against the common infections. Progress was slower than it need be now since we can now avoid some of our earlier mistakes. It should not be considered heresy to consider teamwork desirable against our present intolerable situation with degenerative diseases, accidents and mental disorders. Fee-for-service private practice will retain its relative freedom far more effectively through again welcoming intelligent teamwork than by striking blindly at friend and foe alike as third party encroachers.

In the decade just past many public health adjustments have been made to shift emphasis from, though not neglect, major problems of the past and to recognize and move against those of today which appear as impregnable as the combined communicable diseases seemed fifty years ago.

We should pause to consider the direction of changes. Have the adjustments been maximally constructive? Have they been timely, effective, in the interest of efficiency and long-range economy? Will reduction of these present major health problems actually contribute to freedom of fee-for-service private medical practice as did the teamwork reduction in communicable diseases?

Three major overall public health adjustments have occurred during the decade:

1. Administrative reorganization in 1950 reducing the divisions from fourteen to seven with Water Pollution Control, the eighth added in 1957
2. Recodification revision of public health laws by the 1957 General Assembly; and

---

\* Presented before the Conjoint Session—Medical Society of the State of North Carolina and the State Board of Health, Asheville, May 7, 1958.

\*\* Secretary-Treasurer and State Health Director, N. C. State Board of Health, Raleigh.

3. Combined budget—federal, state, local—increased from \$2,684,277 for fiscal 1948 to \$10,960,027 for fiscal 1958.

During this time the State staff has increased 246 to 380 and local employees from 878 to 1186. Funds to private physicians with assisting personnel and hospitals have increased from \$371,177.00 to \$1,057,447.00 or 184.9%. Federal funds have increased \$2,421,209.00 to \$3,007,784.00 or 24.2%. State funds have increased \$862,264.00 to \$2,993,810.00 or 247.2%, and local funds have increased \$2,125,385.00 to \$5,334,965.00 or 151.0%. It is also noteworthy that the Cooper Memorial Health Building was completed and occupied in 1956 and will be fully air conditioned next month. Our most severe polio epidemic of 1948, the series of hurricanes in 1954 and 1955 and the Asian influenza outbreak of 1957 have presented emergency challenges that have put North Carolina's State Board of Health and local health departments to acid tests. We serve many agencies to avoid costly duplication.

In our State Board of Health Administration there are eight major divisions comprising about thirty sections. These divisions are: Central Administration, Epidemiology, Laboratory, Local Health Administration, Oral Hygiene, Personal Health, Sanitary Engineering and Water Pollution Control.

## I. CENTRAL ADMINISTRATION

Central Administration has been directly under the State Health Director until a week ago when a Director of Administrative Services was employed. One of the earliest changes made almost ten years ago was to streamline and centralize budget operations, mailing, shipping and receiving and also central files, multilithing and the film library and personnel.

The Publicity Officer added in 1953 the Asheville Station WWNC to his regular weekly broadcasts over WPTF. He has been increasingly helpful in Medical Society as well as Health publicity particularly for meetings and feature articles.

The Medical-Public Health Library was established in 1954 by a grant from the Z. Smith Reynolds Foundation. Visits to the Library, loans of material and assistance in organization and preparation of presentations have about doubled over the second year of operation.

## II. EPIDEMIOLOGY

In addition to vital statistics, communicable disease control, occupational health, venereal disease control and tuberculosis control, the following sections have been added:—1951 Veterinary Public Health; 1954 Accident Prevention (Home and Farm); and 1957 Chronic Disease-Radiation.

During the 10-year period only four cases of smallpox have occurred in the State, three cases in 1948 and one case (transient; exposure unknown) in 1953. Typhoid fever has shown a consistent annual decline from 56 cases reported in 1948 to 23 in 1957. Malaria has declined from 147 cases of local origin in 1948 to 48 in 1953 and none in 1957. Diphtheria has declined from 485 cases reported in 1948 to 49 cases in 1957. Tuberculosis deaths have declined each year from a total of 1128 in 1948 to 224 in 1957, a decrease of 80 per cent. During the ten-year period 2,656,234 persons have been chest x-rayed for the detection of tuberculosis under the



Board's mass x-ray program. The continuation of an intensified venereal disease control program during and following World War II, was responsible for a consistent annual decline through 1953 when an all-time low of 3,682 cases were reported. The over-all decline of infectious syphilis during the 10-year period was from 7,313 cases reported in 1948 to 5,440 cases reported in 1957, an average annual decrease of 873 cases for the period.

As a result of the shortage of professional personnel during and following World War II, our occupational health program was curtailed to the extent that supervision could be provided for only the dusty trades and for emergencies resulting in other occupational health hazard. During the past three years, this Section has been restaffed to a full complement of trained occupational health workers, provided under an increased budget and including a medical director, two engineers, one associate industrial hygienist, an occupational health nurse, and supporting clerical personnel. The occupational health program within the past three years has broadened its scope of activities to provide advisory and supervisory service to many industries other than the dusty trades, including periodic investigations of hazards in the chemical, metallurgical, textile and other industries. Also, it is investigating radiation hazards incident to defective x-ray machines owned and operated by State and local health departments. The new Chronic Disease-Radiation Section is coordinating services in these important areas. An Advisory Study Committee on radiation protection has been set up to aid the State Board of Health particularly in developing proposed laws and regulations.

Our Veterinary Public Health Section has been most effective in the promotion of a State-wide rabies control program involving the adoption of local ordinances requiring the registration and vaccination of all dogs in the State and the destruction of strays. Psittacosis control, anthrax control, studies of equine encephalitis, and brucellosis have been problems of special concern to the Section, each of which has necessitated special investigations and control measures.

A State-wide educational program relating to the prevention of home and farm accidents has been considered of great importance to the people of the State, as accidents, exclusive of motor vehicle accidents, are now responsible for more deaths than the combined total of deaths from all acute communicable diseases and are largely preventable. This program initially supported by a Kellogg Foundation grant, has been actively promoted during the past three years as a special service carried out under the comparatively newly organized Accident Prevention Section.

An automobile crash injury study in cooperation with private physicians, the Motor Vehicles Bureau, hospitals and Cornell University was begun with federal funds as the pioneer state in September 1953. Since then Ford and Chrysler have made grants and all manufacturers are utilizing data to build greater safety into their vehicles.

After years of frustrating stimulation of fear through selfish publicity and the desperation use of ineffective gamma globulin in 1952-1953, Salk poliomyelitis vaccine was first used on a field trial basis in 1954. The State Board of Health has carried out an active poliomyelitis vaccination program for children under twenty years of age, and for pregnant women. Since the beginning of the Statewide program in April 1955 through March



15, 1958, a total of 3,127,443 inoculations have been given by and through local health agencies with vaccine purchased by the use of Federal funds and distributed by the State Board of Health. A total of 1,244,780 persons have received one inoculation, 1,079,545 have received two inoculations, and 803,118 or 46.8 per cent of the eligible child population have received three inoculations. These inoculations are exclusive of children vaccinated by private physicians as paying patients. The poliomyelitis vaccination program has resulted in 229 cases reported in 1957, the lowest since 1948, which was an epidemic year with 2,516 cases reported. 315 cases were reported in 1956. The paralytic cases reported in 1957 totaled 53 as compared to 179 in 1956. In 1958, through April 2, no poliomyelitis which had its onset during this year, has been reported.

During 1957 the Public Health Statistics Section rendered services to Committees of the Medical Society of the State of North Carolina in personnel, tabulating, materials, equipment and supplies costs in the amount of about \$2,300.00.

### III. LABORATORY

Through its half century of services the State Laboratory of Hygiene has had only two directors. Among new activities since 1948 have been, as usual, many of great assistance to private physicians throughout the State.

#### *Bacterial and Viral Activities:*

1. Anti streptolysin O titer testing of blood.
2. Phage typing of staphylococci.
3. Complement fixation tests for viral and rickettsial diseases.
4. Complete typing of salmonella and shigella groups.
5. Leptospira agglutinations.
6. Viral isolation laboratory.
7. Quantitative determinations on all positive reactors to VDRL test for syphilis.

#### *Chemical Activities:*

1. Spectrograph laboratory for chemical analysis.
2. Radiological laboratory for measuring radioactivity in water, foods and other materials.
3. Total proteins on spinal fluids.
4. Blood sugar determinations in diabetic surveys.

#### *Other Activities:*

1. Cancer cytology laboratory.
2. Certification of milk laboratories as examining milk in accordance with Standard Methods.

### IV. LOCAL HEALTH ADMINISTRATION

Direct State aid to counties ten years ago was \$350,000, half of which was earmarked for venereal disease control for seventeen counties. The 1949 General Assembly increased State aid to counties by \$800,000 and in July of that year the last four counties began local health department services. This year the local health service budget was \$6,905,785.17 with 77.2% from local sources. During the decade local funds have increased

151% while federal funds have decreased 48%. Increased local health services, personnel and salaries have been borne by increased local funds.

Increased emphasis has been placed on health education as services have more and more shifted from those for people to those with people and requiring their understanding and participation—individually and as communities.

The School Health Coordinating Service was strengthened in 1949 by a yearly appropriation to the Education Department for \$550,000—reduced since 1955 to \$425,000 annually. The State Board of Health has provided a slightly smaller amount and the finding and correction of defects among those least able to pay has stimulated similar action among those who pay their own bills.

Public health nursing has been strengthened in training and salaries and the number has increased from 380 local, 7 state, in 1948 to 501 local, 14 state, in 1958. Local nurse supervisors have increased 19 to 37. Specialized nursing consultation has developed from Maternal and Child Health, Planned Parenthood and Occupational Health to Nursing consultation in Pediatrics, Heart, Cancer, Mental Health and Crippled Children's programs. Changes in Public Health Nursing during the past ten years include: (1) Public health nursing care to the chronically ill by referral systems from hospitals; (2) Mental health concepts have been integrated throughout all nursing services; (3) School health services are more extensive; (4) Increased services in clinics and schools have resulted in more selective home visitation; (5) Less time is required for communicable disease control nursing but an increase for immunization for poliomyelitis, assistance in supervision of premature infants, rheumatic fever nursing services, speech and hearing control work and more effective tuberculosis nursing supervision.

On July 1, 1949, the State Mental Health Authority was transferred from the Hospitals Board of Control to the State Board of Health. In 1948 there were seven poorly staffed clinics in six communities. We have attempted to develop mental health services in all local health departments utilizing the 80 physicians and over 500 registered nurses working in this new field as has been done effectively for many years, in tuberculosis control. There are now 9 full-time clinics, the older ones being well-staffed and one has been approved as a training center by the American Association of psychiatric Clinics for Children. A training program for mental health workers has expanded through stipends to mental health students but more spectacular has been the development of training facilities. Today one clinic provides training for all mental health disciplines, another for clinical psychologists, and four others for psychiatric social work students. The Mental Health Section has received recognition for initiating the two-week Pisgah View Community Mental Health Workshop in Western North Carolina which is probably the only one of its kind in the country. Last year a plan was developed with the four State Mental Hospitals whereby local health nurses assist mental patients and their families to adjust properly prior to and following hospitalization. In order to provide these nurses with some of the methods and skills necessary for helping in these situations 138 from the seven counties now participating have been given one and two weeks orientation courses at Dix Hill Hospital. If these pilot project

methods prove helpful, this vital service should be extended to other local health department nursing staffs.

Amazing progress has been made in providing good working quarters for local health department staffs in cooperation with the Medical Care Commission. Seventy-three health centers have been completed; five are under construction; three are planned and approved. Six more have been built entirely with local funds.

## V. ORAL HYGIENE

The decade, 1948 to 1958, has been a most significant one for Public Health Dentistry. It was in the early fifties that, as the result of many years of careful research and experimentation, the fluoridation of public water supplies was accepted and endorsed by leading scientific and professional groups as a safe and effective means of greatly reducing the incidence of dental caries. The State Board of Health approved the fluoridation of municipal water supplies in 1950, later re-affirming and strengthening our policy to one of recommending fluoridation. Charlotte was the first city in North Carolina to fluoridate its water supply in 1949. Now there are twenty-five towns in the State, with a combined population of approximately 600,000 which have adopted this preventive measure. In many of these towns the beneficial results of fluoridation may already be observed in the better teeth of your children. Many other communities have the matter under consideration. Physicians, dentists, and public health workers should be alert to the opportunities for promoting this very promising public health procedure. Sodium Fluoride has also been furnished to private dentists for topical application since 1948.

This ten year period, we believe, marks a turning point in reducing the gap between dental health needs and dental services. With a reduction in needs effected by fluoridation and by the results of a program of dental health education and with an increase in staff, our Division of Oral Hygiene is optimistic over the prospects of being able to render more nearly adequate dental services. Special efforts in recruitment during this period have brought results. The staff of public health dentists has been doubled from ten to twenty. Some recent losses to the Armed Forces and to private practice have temporarily reduced this number. However, at the beginning of the next school year, we hope to fill the vacancies, as well as, several new positions provided for in the budget for fiscal 1959.

A development of importance to dental public health, during the last ten years, is the growing interest among members of the dental profession in children's dentistry. It is gratifying to note more general practitioners devoting time to working for children and more dentists specializing in the field of children's dentistry. The founding of the Dental School at the University of North Carolina has given impetus to this movement, while the dental health education program of the Division of Oral Hygiene has created an increased demand for good dental services for children. This reciprocal relationship between private practice and public health dentistry is good for both. It is essential to the welfare of the people and to the attainment of our goal of better dental health for all of our citizens.

## VI. PERSONAL HEALTH

*Maternal and Child Health.* Following a conference of representatives of the Children's Bureau, the State Board of Health, and the North Carolina Pediatric Society, it was decided that concerted effort should be made to improve the facilities for the care of premature babies and hopefully at the same time through improved prenatal care to eventually reduce the number of premature births. Beginning in late 1948, especially equipped and staffed premature centers were established in strategic areas throughout the State. There are now seven centers with a bed capacity of approximately one hundred. Arrangements were made at Duke for special training of hospital and public health nurses in the transportation and care of premature babies. The pediatricians are paid for their services up to \$50.00 per infant. The cost of the program has ranged from around \$200,000 to \$275,000 per year. Many extremely small infants have survived. In the early years of the program, several of these infants developed retrolental fibroplasia. Since discovery of the fact that too high a concentration of oxygen was largely responsible for such conditions, blindness from this cause has been almost completely eliminated.

A special study in the three medical school hospitals in the field of fetal and neonatal mortality was started in 1954. It involved the completion of a questionnaire on the mother and infant in case the infant is born dead or dies within 28 days. It also includes an approximately equal number of mothers whose infants survive as controls. Several papers on the activities of this study have been published. Tentative arrangements are for this study to continue at least five, and hopefully ten, years.

Beginning in 1953 an annual three-day refresher course in obstetrics and pediatrics has been given by Bowman Gray School of Medicine faculty in these fields for general practitioners and health officers conducting maternal and infant clinics in health departments throughout the state.

Beginning in 1952 special institutes for midwives have been conducted on an annual basis. State Board of Health consultants and selected public health nurse supervisors and public health nurses have conducted these institutes. About the same time, the MCH Section began conducting three-to-five day institutes in the field of prenatal and well child clinics for public health nurses. These have been conducted primarily by State Board of Health consultants in obstetrics and pediatrics.

Plans have been completed for a very modest program for mentally retarded children consisting first of a three-day orientation course at Caswell Training School for state and county public health nurses and social service workers (welfare). Part II is a pediatric clinic in the western and eastern part of the state for diagnosis and evaluation. An important function of these clinics will be finding and correcting surgical, medical, nutritional, and emotional conditions amenable to treatment. The program will be primarily for children under school age. Orienting public health nurses and social service personnel at Caswell should enable them to render more useful counselling and guidance services to the parents of retarded children until they become eligible for admission to special classes for the trainable, educable, day training centers, or institutionalization.

*Crippled Children.* Support funds were first used only for clinic, hospitalization and surgery services for the correction of orthopedic defects.



In 1952 congenital heart lesions amenable to surgery were added at the three medical school hospitals and Charlotte. Beginning in 1953 rheumatic fever clinics were supported at the three medical schools, and at Asheville, Wilmington, Charlotte, and Greenville. This service provides diagnosis, evaluation, treatment and follow-up services up to age 21. In 1956 it took on the support of speech and/or hearing defect clinics at Duke, N. C. Memorial Hospital, Greenville, and Asheville.

*Cancer.* Beginning in 1949 the State Board of Health has established detection or detection-diagnostic cancer clinics in approximately 18 locations throughout the state. Three of these have been discontinued. These clinics are open to the public and are for diagnosis and casefinding only. The program also provides a limited amount of funds for treatment of indigent cancer patients by means of surgery, x-ray or radium for curable patients or patients in whom the disease process can be arrested.

*Heart.* Twice a year three-day refresher courses are given in cardiovascular diseases at Bowman Gray for approximately thirty general practitioners. Twice a year at Duke, courses are given in the fundamentals of electrocardiography for approximately forty general practitioners. The spring course is for beginners and the fall or winter course is for more advanced study. Subscriptions to the "Heart Bulletin" are made available for general practitioners, cardiologists and internists.

The State Board of Health pays for one week Cancer or Cardiovascular Public Health Nursing at the School of Public Health for public health nurses electing these courses.

*Nutrition.* Beginning in 1948, the nutrition program provided consultation services in dietetics to state hospitals, prison camps, etc. More recently the staff of dietitians has been increased and this service has been made available to many convalescent, foster and boarding homes. Stimulated by the first allocation of state funds in 1949 the number of nutrition consultants has grown from four to nine. Internships in nutrition have been provided and a nutrition education supervisor is responsible for interns, orientation courses in nutrition for students and graduate personnel. Since 1953, the nutrition staff in cooperation with other state agencies interested in nutrition and food handling have conducted an institute primarily for the personnel responsible for food service in hospitals.

In the Personal Health Division the Board has established an advisory committee for the crippled Children's Section and the Cancer Section policies are determined in consultation with the Medical Society's Cancer Committee. An obstetric consultant was employed in October 1954.

## VII. SANITARY ENGINEERING

The program of work and responsibilities in sanitary engineering and sanitation have changed to keep pace with the "changing times" and new modes of living. New problems have uncovered new methods and new approaches toward solving these problems.

Our greatest accomplishment has been in better public relations with the many groups and individuals served. Closer cooperation with other agencies has helped obtain desired and more adequate sanitation facilities in our homes, prison camps, educational and medical institutions, our milk,



food and shellfish industry, recreational facilities, municipal water supplies, environment of migrant laborers, municipal garbage and refuse disposal and in the field of insect and rodent control.

Our sanitation programs, which were primarily concerned with rural areas ten years ago, are now focusing more attention on urban and congested semi-urban areas or so-called "fringe areas". For example, in 1947 we approved 3,000 privies and 7,500 septic tanks; and in 1957 we approved 5,234 privies and 21,499 septic tanks. Also during 1957 there were 8,940 new sewer connections reported. These figures show the progress made in residential sewage disposal. Many counties have improved their ordinances and are devoting more attention to fringe area problems of water supply and sewage disposal.

The most drastic sanitation improvements have taken place in our hospitals, school lunchrooms, hotels and motels. Better equipment is being used and high standards of sanitation are being followed. Great progress in milk sanitation has occurred and 47 counties now require that all milk be pasteurized. Approximately 95% of all milk sold in the state is pasteurized.

Considerable improvement in education of sanitation workers has taken place. Classes for foodhandlers have been inaugurated and this work is being expanded into other fields. Our shellfish sanitation program has expanded and improved and a full-time bacteriologist is now employed to provide closer check on the quality of shellfish being produced and distributed in North Carolina. The trends in the food and milk sanitation fields are toward "automation" and this will require more knowledge and training and changes in procedure. Reciprocal milk ratings among the various local health departments have been stimulated.

In the field of water supply, we have promoted fluoridation and the better training of water works operators. Provision of community water supplies has increased and the number under supervision has increased from 310 to 557 during the past ten years. These supplies serve approximately two million people.

Great progress has been made in insect and rodent control. The problems of malaria and typhus fever and the type of programs have changed with the elimination of malaria from our state. Control in these fields is now directed at all insects and rodents that adversely affect our health or comfort. Salt marsh mosquito control was added by the 1957 General Assembly as a progressive approach to the insect and rodent program.

In the field of radiological health, we have begun a program of monitoring our water supplies and inspecting the uses and disposal of radio isotopes. Radiation fall out and air pollution monitoring stations are being operated in cooperation with the U. S. Public Health Service. More attention will be given to these two programs in the future as our overall approach to the problem of environmental sanitation changes.

In cooperation with other state and local agencies—education, welfare, agriculture and employment security—the health protection of migratory agricultural workers has been greatly improved. Sanitary landfills have greatly improved waste disposal and helped to reduce rodent and insect problems.

## VIII. WATER POLLUTION CONTROL

The North Carolina State Board of Health has devoted attention to the problem of municipal sewage disposal since passage in 1893 of the first State Laws relating to the protection of public water supplies. These Laws, subsequently amended in 1899, 1903, 1907 and 1911, were primarily concerned with protecting streams used as sources of public water supplies; therefore, little or no protection was afforded other streams, particularly with respect to pollution by industrial waste discharges.

It became apparent that there was also need to control pollution from the standpoint of all water uses. Consequently, in 1951, after much effort on the part of all concerned, the General Assembly enacted the present State Stream Sanitation Law (Chapter 606, Session Laws of 1951). This Act created within the State Board of Health a permanent Committee known as the State Stream Sanitation Committee, set forth its duties, and authorized the development and administration of a comprehensive stream pollution control program based upon the classification of all waters according to the present or potential future "best usage". This statute remained substantially unchanged until 1957, at which time amendments were enacted making the State Board of Health the administrative agent of the Committee so that this program might be more closely coordinated with and integrated into the total public health program of the State.

Since the establishment of the Committee a determined effort has been made to carry out an effective stream sanitation program. The work involves detail studies of pollution and water uses in each major river basin, holding public hearings, classification of waters according to existing or contemplated "best usage", and administering a comprehensive pollution abatement program throughout the State.

The program was initiated during 1951, with 13 employees and an annual budget of \$76,267, and has been rapidly expanded so that the Division of Water Pollution Control now employs 33 permanent and 7 part-time employees and operates with an annual budget of \$257,074, including \$98,642 of Federal grant funds.

Much progress has been made in carrying out the program. During the past six and one-half years, studies have been completed in 9 major river basins comprising 75% of the total area of the State, 9 public hearings have been held, and classifications have been assigned to the waters in 5 basins representing 40% of the State. Concerted efforts have also been directed toward control and abatement of stream pollution. These efforts have resulted in the issuance of 94 Certificates of Approval and Permits covering sewage and waste treatment projects costing an estimated \$33,000,000. Construction has been completed in connection with 55 projects costing \$21,000,000, while 21 other projects costing \$15,500,000 are now under construction. Active planning is under way in connection with 74 additional projects. Applications for Federal grants under Public Law 660, 84th Congress, have been filed by 33 municipalities, of which 25 were approved for grants totaling \$2,526,540 covering projects costing \$11,658,434. These grants have stimulated sewage treatment works construction. The available grant funds, however, are inadequate to meet

current demands. Many eligible projects could not be approved, and several projects are on the waiting list.

In addition to the above, special studies have been conducted on waste discharges at 64 municipalities and industries. Likewise, assistance has been provided officials of other state agencies, municipalities, industries and their engineers in evaluating waste disposal problems at plant sites being considered by prospective industry.

According to present plans and contingent upon the Division continuing to receive operating funds equal to those now available, all streams in the State will be studied and classified by the end of 1962. In the meantime, every effort possible will be exerted toward abating existing pollution and in preventing new pollution.

#### COMMENT

You are invited to recall the opening questions on these public health adjustments of the decade. Have these changes been in tune with the new needs brought on by the shift in problems from the decrease in communicable diseases, our aging population and our main disease and economic burden shifting to the degenerative diseases, accidents and mental disorders in this nuclear age? We shall continue to have problems in preventive and treatment medicine. Unless we physicians work together toward their adequate solution some third party may be expected to take over. Your State Board of Health and local boards have better representation by physicians than any other official agency and through them we physicians have our best opportunity to exert appropriate leadership toward better health and freedom.

## BIENNIAL REPORT

### Central Administration

(July 1, 1956-June 30, 1958)

Throughout the period covered in this report, Central Administration functioned smoothly under the simplified form of organization which went into effect February 1, 1950. The head of this Division is the State Health Director who was engaged not only in executive duties, but responsibilities of a liaison nature. He maintained contact with the United States Public Health Service, with other State Health Departments and with all other agencies, both official and voluntary, whose activities have any bearing on the health of the people. During recent years, there has been an increase in voluntary and other agencies which concern themselves with health. This naturally has increased the duties of the State Health Director. However, the selection of Mr. Ben Eaton, Jr. as Director of Administrative Services has proved very beneficial to the State Health Director, as well as to the various Divisions and Sections within the State Health Department. The authorized position of full-time Deputy State Health Director has not been filled.

As to the work in Central Administration, it includes that done by the following Sections: Budgets, Public Relations, Central Files, Personnel, Mailing, Multilith, Medical-Public Health Library and Film Library.

### HEALTH DIRECTOR'S ACTIVITIES

During the period covered by this report the State Health Director was active in his participation in the affairs of those organizations and groups which the North Carolina State Board of Health is affiliated. Two annual conjoint reports of activities of the entire Department to the Medical Society of the State of North Carolina, meeting with the Board as required by law, were made—that of 1957 by the Assistant State Health Director.

In addition to his official duties in the Raleigh headquarters, it was necessary for him to attend meetings throughout the State and often in other states. It is often expedient for him to decline invitations because of the press of duties in his Raleigh office. Out-of-State meetings usually attended by the State Health Director include the American Public Health Association, the State and Territorial Health Officer's Association, the Southern Branch, American Public Health Association, and the American College of Preventive Medicine. He has served as President of each of these organizations.

In addition to his other numerous duties, the State Health Director is ex-officio Chairman of the Postmortem Medicolegal Examinations Committee.

### BUDGET

The report of the Budget Section shows the following figures for the 1956-1958 biennium:

From July 1, 1956-June 30, 1958, 2,612 purchase orders and 31,756 vouchers were issued, involving a State-local budget of \$22,542,197. Monthly reports of 80 local health departments representing combined annual bud-



gets for the two-year period of \$13,587,261, were received and audited by the Budget Section. The State-local budgets, totaling \$22,542,197, were divided as follows: 1956-1957, \$11,560,372; 1957-1958, \$10,981,825. Local budgets for the two fiscal years of the biennium, totaling \$13,587,261, were divided as follows: 1956-1957, \$6,646,880; 1957-1958, \$6,940,381.

In the grand total for the biennium listed above, \$1,589,730 was Federal polio money and \$446,970 represented increased local support for Public Health.

## PUBLIC RELATIONS

During the biennium the Senior Publicity Officer, who works under the direct supervision of the State Health Director, performed the duties which the term implies. During the period covered in this report, he prepared and distributed weekly broadcasts which were used over Station WPTF, in Raleigh and WWNC, in Asheville. Both stations give free time and the transcriptions are made without cost by WPTF which, in addition to giving time and material, pays the weekly postage on all recordings sent to Asheville.

The Publicity Officer also prepared and distributed all major press releases for the State Board of Health. Due to the close relationship between the State Board of Health and the Medical Society, he prepared advance material and reported the 1957 and 1958 sessions of the latter. He also assisted in a liaison capacity in publicizing and attending two medically sponsored cruises which originated in Wilmington. He is a member of the Editorial Staff of the "North Carolina Health News", which is the mouthpiece of the North Carolina Health Council of which the State Board of Health is a member.

## CENTRAL FILES

The Central Files operations continued to expand and adjust with increasing and changing program activities. The centralized control of records establishes the responsibility for recording, protecting, and filing the official records and their findings when needed. It controls the systematic retirement of records to storage, and the disposal of those no longer of administrative, historical, research, or legal value.

During this period, 444,974 records were received for filing—this amount would fill to capacity about 90 file drawers. Sixty-eight thousand seven hundred fifty-six searches for material and information were made. Emphasis was placed not only on improving the accuracy of operations, but also on services to the users.

In cooperation with the Department of Archives and History, an inventory of the records was made and definite schedules to govern the ultimate disposition of each series of records were set up. The majority of the schedules have been put into effect.

## PERSONNEL

Salary ranges for the state staff were increased by legislative action while local ranges were increased slightly in certain categories each year with considerably higher ranges offered on a voluntary basis for consideration of the local departments for next fiscal year. In addition, regulations were revised to permit higher local appointment salaries depending upon



qualifications. Classification plans for both state and local health departments were changed as follows: 21 new, 66 revised, and 6 deleted class specifications. The Personnel Section participated in implementing the following legislative changes affecting personnel: change of title (state and local) from Health Officer to Health Director, assignment of Stream Sanitation and Salt Marsh Mosquito personnel as a part of the State Board of Health; full authority for state classification was given to the State Personnel Department; change in regulations for local health department personnel as to hours of work and leave. Other activities of the Section included annual surveys of state personnel sixty years of age and over for retirement purposes and administration of the salary increment program for the state staff.

Within the State Board of Health, there were 250 appointments and reinstatements; 204 separations, 77 reclassifications, 431 salary increments, 363 legislative increases, 25 other salary increases, and 95 employees certified as permanent. As of June 30, 1958, there were 384 employees of the State Board of Health and 47 vacant positions. This is an increase of 45 employees over the last biennium.

In local health departments, there were 851 appointments, 821 separations, 1,123 reclassifications, 1,188 salary increases, and 322 employees certified as permanent. As of June 30, 1958, there were 1,192 full-time employees in local health departments and 67 vacant positions. This is an increase of 11 employees from the last biennium.

## MAILING

Activities in the Mailing Room of the State Board of Health were carried on as a part of the Central Administration, because of the authorizations necessary in connection with requisitions, and materials sent out. During the period covered by this report, a total of 2,277,350 pieces of material were distributed and 1,104,000 copies of the Health Bulletin. During the biennium, 1,250 new names were added to the mailing list and 1,311 were removed. In addition to other routine transactions, the Mailing Room sent out 77 radio scripts to a mailing list that called for the distribution of 37,035 copies. The Department's radio scripts are sent to all local health directors in North Carolina, to all State Health Departments throughout the United States and insular possessions, and to many others who have requested their names be placed on the list. The mailing list includes many libraries, some of which bind the scripts each year and retain them as permanent records on public health.

During the biennium, the Mailing Room prepared 2,648,922 pieces of mimeographed matter, covering 7,124 pages for various Divisions and Sections in the State Health Department. Envelopes were addressed as follows: for Central Tabulating Unit, 183; Laboratory of Hygiene, 21,480; Personal Health, 18,345; Epidemiology, 116,894; Local Health, 18,685; Central Administration, 15,368. The total number of pieces addressed was 240,017.

The number of supply units sent out from the Mailing Room included: Silver Nitrate, 172,675; Silver Nitrate Order Cards, 1,624; Request cards for literature, 3,397; Requisition blanks, 1,073; Physicians services at M&I clinics, 16,814; Planned Parenthood Record No. 690, 1,687; Continu-

ation Sheet for No. 690, 1,270; Planned Parenthood Work Sheet, 1,687. Midwife supplies also were sent out from the Mailing Room to all applicants throughout the State, also all literature and forms for Sanitary Engineering and Vital Statistics.

### MULTILITH

A total of 6,537,137 copies were printed on the multilith machine, while the cutting machine cut 1,805,700 pieces. The total number of copies padded amounted to 1,179,400.

### MEDICAL-PUBLIC HEALTH LIBRARY

During the Library's second two-year period 9,049 visits were made to the Library for or in connection with various types of library service and 7,065 books (including bound journals) and 2,463 unbound journals and other publications were loaned. Two thousand eight hundred and ninety-eight telephone calls were made and received in connection with library service of various kinds; 1,424 newspaper clippings considered to be of interest to staff members were circulated and 1,345 visits were made by the Librarian to other Divisions and Sections in connection with Library services. Nine hundred and seventy-six memoranda were sent out to staff members calling attention to journal articles believed to be of particular interest to the recipients and 493 books were added to the Library collection.

Consistent with the Library's purpose to furnish services not usually available in other libraries, the Librarian attempted to assist staff members, physicians and others throughout North Carolina and, in some instances, in other states with their research and editorial problems. Manuscripts were read and discussed with their authors. Copy and proofs for The Health Bulletin were edited and read. Non-medical and non-public health visitors were assisted in collecting material for papers. Books, journals and other research material not available in the Library were borrowed on Interlibrary Loan from the Duke University Medical Library, the Division of Health Affairs Library of the North Carolina Memorial Hospital, the Library of Congress, the Armed Forces Medical Library and others. Bibliographies were prepared and reports and reprints of journal articles were obtained from the authors upon request. After serving their purpose as current source material, most of the journals were bound for study and research in future years and decades. Newspaper clippings, after making their accustomed rounds and being returned to the Library, were filed by subjects for use by those needing this type of material and reports and reprints (booklets, leaflets, etc.) were similarly filed by subjects. Material requested by other libraries was furnished whenever practicable. Addresses of book publishers and other information needed by the various Divisions and Sections was obtained and furnished. The weekly Library Notes was prepared and distributed regularly, calling attention to published material of a medical or public health nature and listing recently added Library books. Notices were sent to new members of the staff, telling them about the Library, outlining its facilities and services and inviting them to avail themselves of these services. Memos calling attention to articles of particular interest to staff members were issued.

## FILM LIBRARY

Although the film distribution for this report period was slightly less than for the previous biennium, considerable progress was made in the Visual Education Program. One of the reasons for the slight drop in film distribution was the small number of films purchased during the 1954-1956 biennium. Only 63 films per year were purchased during the biennium while scores of films were being worn beyond use and were taken out of circulation.

During this two-year period, the Film Library received and processed a record number of pieces of correspondence. More than 10,991 individual pieces were received. The Library distributed 25,008 films in 19,517 individual shipments. In addition to this distribution figure 925 additional requests were turned down due to an insufficient number of films. More than 5,000 film catalogues and 3,000 supplemental film lists were distributed to the many borrowers throughout the State.

The Library was fortunate that the 1957 Legislature appropriated \$15,000 exclusively for the purchase of new films; and, during this report period, the Film Library has purchased 218 films at a total expenditure of \$17,135.90. In addition to these purchases, 255 films were repaired and restored to circulation. With this increased number of films purchased, the Library is in a better position to meet the ever-increasing demand for this service.

The Library also distributed the following amounts of Venereal Disease drugs to the local health departments: 65,271,000,000 units of Bicillin; 17,997,000,000 units of Penicillin; 54,150 grams Sulfadiazine; 14,641—250 mg capsules Achromycin; 652—250mg capsules Aureomycin; 2—1,000-tablet bottles A. P. C.; 8 vials Frei Test Antigen; 3—1,000-tablet bottles Pyribenzamine; 79—1-gram vials Streptomycin; 42 bottles V. D. R. L. Antigen; 1 tube Cortone Acetate; and 7—100-capsule bottles Chloromycetin.

In addition, the Library distributed a total of 21,690,000,000 units of Bicillin during this report period to the Rheumatic Fever Clinics for the Crippled Children's Section.

In distributing the above supplies and materials, the Library used a total of \$1,885.93, in postage.

## LOCAL HEALTH DIVISION BIENNIAL REPORT

July 1, 1956-June 30, 1958

Public Health Services have been made available to every county in the State during the biennium, July 1, 1956—June 30, 1958. In many instances the Division has been well rewarded over the progress made available to our local constituents. If it had not been for the local interest that had been created by our public health programs and services rendered, thereby causing an increase in local appropriations, we would not have been able to summate as much progress on the ledger sheet showing debits and credits.

It is gratifying to note that there is continued progress in furnishing modern health centers to a high percentage of our counties, thereby giving the people a worthwhile attractive Hill-Burton center where they can receive their health services in the proper setting. The Medical Care Commission is to be congratulated on its desire and ability to help with the financing of these health centers through County, State and Federal funds. During the biennium, July 1, 1956—June 30, 1958, seventeen (17) centers have been constructed and modern equipment placed in each one. To date we have been informed through the Medical Care Commission that North Carolina is second in the United States in the number of health centers constructed. The State of Maryland is first. The ability to obtain modern quarters for administering health services has increased the prestige of health departments throughout the State of North Carolina. New recruits for public health staffs are impressed with the official physical setup.

The Division has been very much interested in obtaining increased staffs in all disciplines in order to meet the prevailing standards. During the period of time under consideration we have lost several of our best health directors to other states, due to the salary schedules prevailing. Early in the years 1957 and 1958 an attempt was made to establish new salary scales for all the various disciplines and just before the close of the biennium the Merit System was able to introduce a new scale, titled the Normal range. This was introduced on a permissive basis and became effective July 1, 1958.

Detailed reports of the various Sections in the Division follow:

**ADMINISTRATIVE SECTION:** The Administrative Section for each year of the Biennium 1956-57—1957-58 continued to allocate to the local health departments the same amount in regular State funds of \$1,132,000. Total Federal funds including mental health and special grants, available to the local health departments for fiscal year 1956-57 were \$280,306.00 and for fiscal year 1957-58 \$293,820.00, which represents a decrease in Federal funds from the previous biennium. Local funds for the fiscal year 1956-57 were \$4,896,286.00 and for fiscal year 1957-58 were \$5,334,965.00. This represents an increase of \$1,447,914.00 or 16% over the amount for the previous biennium. At the close of the biennium it is noted that



77.2% of all funds in support of the local health program comes from local sources. 18.5% from State funds and 4.3% from Federal funds.

As of June 30, 1958 there were budgeted in the 100 counties and two city health departments a total of 1259 full-time positions. Of this number, 68 were health directors, 7 assistant health directors, and 7 dentists. There were 33 supervising public health nurses, 491 staff nurses, 234 sanitarians, engineers and veterinarians, 6 public health investigators, and 13 health educators. The remaining personnel consisted of 400 clerks, bacteriologists, technicians, mental health personnel, maids, etc. There were 67 budgeted positions unfilled because of unavailable funds and untrained personnel. Vacancies in the positions of health directors and public health nurses led the list with 13 vacancies in health directors and 23 in nurses.

The following pages show pertinent data sheets for the two fiscal years.

**TRAINING:** During the past few years public health work has continued to expand. Demand for qualified public health personnel continues. How to acquire trained personnel, as well as funds with which to train others, to meet the demand is one of the unsolved problems confronting North Carolina. Realizing that the success of a public health program is dependent to a large extent upon the availability and employment of competent and professionally trained people, the State Board of Health, within its budgetary limitations, made possible some type of training during the biennium for the following personnel, ranging in length from one week to one year:

- 1 Prospective Health Director awarded a scholarship for 1 year of training. He gave up the course to seek employment elsewhere and refunded the funds paid for the course.
- 2 Health Directors awarded tuition towards obtaining Masters Degree.
- 4 Health Directors paid stipends to cover orientation in local health departments.
- 2 Health Directors took short course in Home Accident and Prevention.
- 1 Dentist awarded tuition at the University of North Carolina.
- 12 Public Health Nurses awarded scholarships for academic training, period of training ranging from 8 weeks to 12 months.

Nurses taking Special Fields as follows:

80 nurses—P.H. 190 & 195—Principles and Practices of Public Nursing and Public Health Nurse in a Maternal Health Program.

40 nurses took training in T.B. Control.

47 nurses took training in Cancer Control.

35 nurses took training in Chronic Diseases.

52 nurses took training in Cardiovascular Diseases.

32 nurses took training in Home Accident and Prevention.

Tuition, room and board paid for several hospital nurses given training at Duke Hospital in Premature and Newborn Care.

1 Nutritionist given 1 year of internship in a local health department.

1 Health Educator's tuition paid for one semester at the University of North Carolina.

13 Sanitarians attended Milk Sanitarians Short Course at State College.



1 Sanitarian took 9 months course in P.H. Sanitation at the University of North Carolina and State College.

23 Sanitarinas took 12 weeks of training at the University of North Carolina, State Board of Health and in local health departments.

3 Psychiatric Social Workers awarded scholarships at universities for several months of training.

Workshops in Community Mental Health held at Pisgah View Ranch, Candler, North Carolina, for the past two years were well attended by many public health workers. Two hour credit in the Extension Division of the University of North Carolina was arranged for those who desired it. Stipends and tuition paid in connection with these Mental Health Workshops.

3 Laboratory Workers' expenses paid for special training in Laboratory work.

25 clerks from local health departments given two weeks course in Records Short Course at the University of North Carolina.

14 Deputy Registrars from local health departments given training in statistical work at the State Board of Health.

In addition to the above training, expenses were paid to enable many persons in the field of public health to attend institutes, seminars, workshops, etc.

**RECORDS AND PROCEDURES ANALYSTS:** The training part of the program continued to pay probably the best dividends. The eighth and ninth two-weeks basic courses were held in the 1956-58 period and as of this date 130 girls have attended.

A further step in training was the beginning in 1957 of a three-day refresher or workshop type of course in vital statistics registration here at the State Board of Health. The Local Health Division sponsored this in cooperation with the personnel of the Public Health Statistics Section who conducted the course.

The Public Health Report which is completed annually by the local health departments was slightly revised in the Fall of 1956 in order to meet requirements of federal agencies.

Stimulating and encouraging better records and reports continued to be a basic goal. Evidence of any results is very difficult to see and much work is done for which there are no tangible results as such moves so slowly.

However, 43 counties are using the Master Card and Guilford County has begun work on a project which aims at centralized control of their records.

**PUBLIC HEALTH NURSING SECTION:** *Staff*—The professional staff of the Public Health Nursing Section consists of a chief and seven area generalized public health nursing consultants—four of whom provide consultation state-wide in: Mental Health, Planned Parenthood, Tuberculosis, Heart and Cancer. During the biennium, these consultants made 1,381 visits to local health departments for consultation. One hundred and seventy-five visits were in regard to the specialties of these consultants. Six other nurses employed at the State Board of Health but administratively placed in other sections give specialized services in Crippled Child-

ren, Maternal and Child Health and Occupational Health programs. At the present time, there are vacancies for an Assistant Chief, a Generalized Consultant with a specialty in Chronic Diseases, (who would also give consultation to nursing homes) another Generalized Consultant and a Consultant with the Crippled Children Program. At the present time, 524 local health department nursing positions are budgeted, an increase of 16 during the biennium; however, there were 23 positions vacant which gave a total of 501 positions filled at the close of the biennium. The recruitment of prepared professional personnel continues to be a perplexing and constant problem. With the University of North Carolina School of Nursing graduating nurses prepared in public health, it is hoped that this problem will be lessened; however, public health nursing salaries have not kept apace with salaries of nurses in other activities and competition for the graduates of these collegiate schools is keen.

*Staff Education*—There has been a slight decrease in the percentage of public health nurses who have *completed* the program of study in public health nursing (29.4%—28.6%). The percentage who have no academic preparation in public health, however, has also decreased (36.7% to 29.2%). The staff education plan which was initiated during the last biennium is responsible for this latter welcome decrease. The nurses employed in public health without academic preparation in this field take courses offered by the School of Public Health at the University of North Carolina each summer, and take other extension courses during the year. During the past year, over 100 of the public health nurses took one or more extension courses. (This is 20% of the total group.) Approximately 40 public health nurses have already moved to a higher Merit System classification because of the completion of these courses.

Other staff education activities have been strengthened. Several smaller health departments now combine for an on-going, long-range staff education program. This has led to more efficient service, increased knowledge and improved morale.

Three-day orientations are offered to public health nurses at the state hospitals for the mentally ill and at Caswell Training School.

A workshop on the evaluation of local health department programs was held for the consultant staff of the State Board of Health. The Public Health Nursing Section participated in this.

The public health nursing manual is still in the process of being revised. This, too, has been made an educational process.

During the biennium, twelve N. C. public health nurses received scholarships that were available through the U. S. Public Health Service under Title I and Title II of the Health Amendments Act for academic study in public health nursing. State scholarships assisted eight public health nurses to complete the program of study in public health nursing.

*New Services*—The referral system with N. C. Memorial Hospital has been successful. Other hospitals are also requesting referral systems whereby patients may be referred for public health nursing care. Plans have been developed with the state hospitals for the referrals of patients and families of mentally ill patients of these hospitals to local health departments for public health nursing supervision and care. At the present time, this is limited to eight counties but will later include all

counties. Plans have also been developed with the State Department of Public Welfare for public health nursing care and consultation to patients of boarding homes for the aged and infirm.

**HEALTH EDUCATION SECTION:** The Health Education Section has two professional public health educators and a clerk. Both professionals give consultation service to local health department staffs, the Section Chief covering the eastern counties and the consultant, those in the west. In view of the real need, a new consultant position was budgeted in 1957 and filled, effective July 1, 1958.

The Section has directed its major efforts to encouraging the development of sound local health programs, because health education is one of the responsibilities of every health department. Marked progress has been made in the awareness of its importance and in greater emphasis in this area.

A number of departments employ full-time health educators. At present there are twelve health educators working in nine counties and one person works in a five-department district. Three local health educators resigned during the biennium and six were employed. New employees are visited by a Section consultant monthly for their first year. Experienced health educators are visited every six months. Ninety-four visits were made. Twice a year the local health educators hold a one-day inservice training session.

One or more full-time health educators on a local staff is the ideal aid to the development of an effective health education program. Many departments, however, cannot afford one. A need was expressed in the last biennial report for an opportunity to test the use of a health educator in a group of counties. Progress has been made in this direction. The Public Health Service loaned a career health educator to the state for a two-year period beginning in March, 1957. He is assigned to Rocky Mount and the four health departments around it. He gives direct services to the departments and communities and assists staff members with their educational activities. All indications are that the demonstration will be considered successful. When it ends in February, 1959, it will be very helpful to the local health departments if the Section can provide a replacement to continue this service in the district, enlarging it to ten departments. Another such district should be set up in the western part of the state also.

Eighty-six counties are without the services of a local health educator. Section consultants made eighty-four visits to thirty-one departments to help staff members plan how to give educational opportunities to their patients, school and community groups, and information to the public. Examples of services are: seven days help in organizing volunteers to work in the five-year pilot study of tuberculin testing in Pamlico County; assisting with a nutrition workshop for teachers; helping a local staff develop a pamphlet on roundworms.

The Section began in the Fall of 1957 a quarterly bulletin for local health departments on bulletin boards. It has been well received.

Section personnel gave leadership to the following activities of the State Board of Health as a whole: the four-day Evaluation Conference held in September, 1957 for all administrative and consultant personnel; development of exhibits for professional meetings and the N. C. State

Fair; producing a thirty-minute television show on WUNC-TV as part of the series, "Affairs of State."

Seventy-two services were also given to thirteen individual sections or divisions. Typical activities were: serving on the staff of the Mental Health Section's two-week Community Mental Health Workshop; preparing a pamphlet on chest X-ray for the Tuberculosis Control Section; arranging a joint meeting of the Venereal Disease and the Health Education Section and the School Health Coordinating Service.

The influence of North Carolina's health education and general public health program is made literally world-wide through the visits of health education leaders from other countries. Eight visitors observed in this state for a total of fifty days during the biennium.

The Section's work is not confined to state and local health departments. Fifty-nine services were given twenty-nine other agencies. The assistance included: serving on the staff of the three-day Parent Education Workshop of the North Carolina Congress of Parents and Teachers both years; serving on the Board of the North Carolina Heart Association; serving on the North Carolina Public Health Association's Commission to study Personnel Practices.

The Section Staff has worked for recruitment of health educators into the profession. The basis of recruitment at present is the federal traineeship program begun in 1956. Nine North Carolinians have received their training through such grants to date.

The Section staff looks forward with optimism to the work of the next biennium. The addition of a new consultant starting July 1, 1958 will increase the work that can be done. There is need, however, for a minimum of one more consultant for more intensive work.

**MENTAL HEALTH SECTION:** The Mental Health Section Program was further expanded during July 1, 1956—June 30, 1958. The ninth regional mental health center was started in Elizabeth City; a clinical psychologist was added to the New Hanover County Health Department in Wilmington. With the establishment of a center in Wilmington, the goal of ten regional mental health centers will have been reached.

Several mental health centers were enlarged. The Charlotte Mental Health Clinic added another psychiatrist, a clinical psychologist, and a psychiatric social worker; the Durham Child Guidance Clinic increased its staff and was approved as a training center of the American Association of Psychiatric Clinics for Children. Enlargement of the centers in Asheville, Raleigh and Greenville was prevented only because of loss and scarcity of mental health personnel. Seven thousand two hundred and twelve patients, of which 4,400 were new patients, received a total of 31,542 diagnostic and treatment interviews by the staffs of these mental health centers.

Recruitment efforts continued. "Professional Opportunities in North Carolina's Growing Program in Mental Health" was revised and distributed. Recruitment letters were prepared, mimeographed, and mailed to professional schools and hospitals. Two new recruitment pamphlets, one for clinical psychologists and the other for psychiatric social workers, were prepared, multilithed, and distributed throughout the country. All inquiries received a personal reply.



Efforts to train needed mental health workers were continued but limited because of lack of funds. Each year two social work stipends were awarded. The Durham Child Guidance Center provided training for all mental health disciplines, the center in Charlotte for psychology students, and other centers were used by the School of Social Work for social work students.

The educational program included the distribution of mental health films and pamphlets, and mental health books, and the continuation of the Pisgah Community Mental Health Workshop which has become widely recognized throughout the country. A two-day workshop was also held on "The Recruitment and Training of Mental Health Personnel," and a five-day Mental Health Institute for Local Health Directors.

**SCHOOL HEALTH COORDINATING SERVICE:** The School Health Coordinating Service continued to work under the joint administration of the State Board of Health and the State Department of Public Instruction.

Mrs. Annie Ray Moore, Health Educator, who was on leave of absence working in Burma with the World Health Organization, a specialized agency of the United Nations, returned to her regular work as Health Educator August 26, 1956. Mr. Raymond Rhodes who was serving as Health Educator during Mrs. Moore's leave of absence returned to his former position with the Morehead High School in Leaksville, North Carolina.

Dr. Taylor Dodson, Adviser in Physical Education, resigned August 30, 1957 to accept a position in the Department of Health and Physical Education at Wake Forest College.

Mr. Raymond Rhodes was re-employed June 1, 1958; this time on a permanent basis, to fill the position of Physical Education Adviser.

Staff members worked primarily with school and health department personnel but continued to cooperate with other agencies and organizations concerned with the health and fitness of school age boys and girls.

The School Health Coordinating Service, under the direction of the State Superintendent of Public Instruction and the State Health Director, administered the expenditure of State Board of Education "school health funds" amounting to \$423,173 for the year 1956-57 and \$428,533 for the year 1957-58, in accordance with State laws and policies adopted by the State Department of Public Instruction and the State Board of Health.

"School health funds" were allocated each year of the biennium to local school administrative units on the basis of \$.35 per pupil in average daily membership plus \$750.00 for each county regardless of the school population.

Services of the staff of the School Health Coordinating Service with school and health department personnel included the following: giving consultative service; making field visits to schools and health departments; planning and carrying on inservice education; preparing curriculum materials on health, physical education, recreation and on special aspects of health such as family life education, alcohol education and mental hygiene; reviewing materials and preparing bibliographies; locating and recommending the use of local, State and National resources; preparing, distri-



buting, and/or using evaluative procedures; attending conferences and meetings of State and National organizations.

Most of the work of the staff in the field and in the office was concerned with:

- (a) Health services including: teacher screening and observation of children with obvious deviations from normal and medical examinations and follow-up work to get correction.
- (b) Health instruction in all of the various phases of health in grades one through twelve in accordance with the needs of children and the known health problems of the local community, State, and Nation.
- (c) Healthful school living or the environmental aspects of health which can serve as a laboratory for learning experiences as well as being a healthy place to live seven or more hours per day.
- (d) Physical education which is required 30 minutes per day in grades 1-8 and in the 9th grade is required three periods per week.
- (e) Mental hygiene which is considered an integral part of health but is given special emphasis by a Mental Hygiene Consultant who is concerned largely with the prevention of mental disorders.

According to reports filed by local health departments with the State Board of Health the following health services were rendered school children during the school year 1956-1957:

1. Number of entering children given medical examinations:
  - a. Examined by health department with parents present. 44,448
  - b. Examined by health department without parents present. 27,561
  - c. Examined by private physician. 19,179
  - d. Total examined. 87,045
2. Number of elementary school children (beyond first year) given medical examinations:
  - a. Children given examination by the health department. 44,812
  - b. By private physician. 9,661
  - c. Children given examination with parents present. 9,526
3. Number of high school children given medical examinations:
  - a. Ninth grade children given examination by the health department. 19,068
  - b. By private physician. 2,301
  - c. Other high school children given examination by the health department. 16,024
  - d. By private physician. 3,667
4. Screening of school children:
  - a. Children screened for visual defects by health department personnel. 97,272
  - b. Children screened for hearing defects by audiometer testing by health department personnel. 27,906
  - c. By other technicians. 19,330
  - d. Children screened for oral defects by health department personnel. 199,399
  - e. Children screened by health department personnel for other defects. 69,157
  - f. Children referred to nurse by teacher. 192,980

5. Referrals and medical or dental care:	
a. Children referred.	184,459
b. Reasons for referral showing number of each:	
(1) General	4,993
(2) Behavior	757
(3) Eyes	25,694
(4) Ears	2,631
(5) Mouth-Teeth	136,842
(6) Throat-Tonsils	16,041
(7) Skin-Scalp	5,015
(8) Orthopedic	1,800
(9) Other	8,443
c. Children secured care by physician.	61,430
d. Children secured care by dentist.	97,074

Expenditure of State Board of Education  
School Health Funds for the Year 1957-58

Salaries:	Health Educators	\$1,662.20	
	Nurses	5,338.69	
	Audiometer Technician	1,214.00	
			\$ 8,214.89
Travel:	Health Educators		
	Nurses	2,654.05	
	Audiometer Technician		
			2,654.05
Diagnosis:	Eye Defects	499.10	
	Other Defects	8,516.46	
			9,015.56
Correction of Defects:	Dental	219,157.46	
	Eye	20,355.75	
	Tonsils	108,713.92	
	Other	25,469.37	
			\$373,696.50
	Total Expenditures . . .		\$393,581.00

## BRIEF SUMMARY OF BIENNIAL REPORT FOR PERSONAL HEALTH DIVISION

1956-58

### Maternal and Child Health

During the biennium, there was added to the staff an excellently trained nurse in the field of care of premature and term babies and in child growth and development. Her chief duties will be working with hospital nursery personnel throughout the state. It is hoped that this program will integrate the teaching program at Duke (the care of premature and term babies supported by the MCH Section), the hospital nursery services, and public health nursing care of infants. In-service training programs were continued as follows:

1. Care of premature and term babies at Duke. This involved 37 public health and hospital nurses, including one from Puerto Rico and two from other states.
2. Nursing aspects of MCH at Saluda. This course was given to 94 public health and hospital nurses.
3. Refresher course for midwives at Fayetteville. This course was given to 99 midwives.
4. Nursing conferences in MCH with county or groups of county health department personnel. This in-service training reached 61 public health nurses.
5. Three-day refresher course in obstetrics and pediatrics for general practitioners conducting M&I clinics. This course was attended by 48 general practitioners.
6. MCH nursing consultation service to local public health nursing committee on the public health nursing manual.

A new program in this field was started during the year. It consists of orientation of public health nurses and welfare case workers in the care of retarded children at Caswell Training School. Approximately 12 nurses and case workers are given three-day orientation, lectures, etc., at Caswell each month. Another part of the same program for the mentally retarded is the operation of a child evaluation clinic in Washington and Morganton. This service consists of a complete pediatric examination with all necessary related diagnostic facilities and a psychological examination.

Special programs were continued as follows:

1. Fetal and neonatal mortality study at the three medical school hospitals and at one non-teaching hospital.
2. Reporting of infant mortality rates in all hospitals delivering 500 or more infants per year. These reports go to the hospital administrators with only their hospitals identified.
3. Cooperation with the Child Health Committee of the State Medical Society in completing questionnaires on infant deaths in all hospitals delivering 500 or more infants per year. (Recently expanded to include hospitals delivering 100 or more infants per year.)

The usual services of consultants to local health department personnel in obstetrics and pediatrics, nursing, and nutrition were continued. Drugs, immunizing agents, literature and sound films were furnished throughout the state to local health department prenatal and well baby clinics. The attendance at these clinics consisted of 73,446 prenatal visits and 105,630 infant and preschool visits.

The MCH Section had a number of visiting MCH officials from foreign countries, mostly physicians, some nurses. Their visits ranged from a few days to two weeks.

One primary center was added to the six primary centers for the care of premature infants. The MCH Section supports 36 of the approximately 100 beds in these centers and maintains a sizable appropriation for over-authorization of small infants born in the homes or small hospitals when state supported beds are occupied. The total number paid for by the state was 741, at a total cost of \$438,534.31, or an average cost of \$591.80 per infant. A rather exhaustive study of prematures who have reached school age is being done in one county. This study will involve approximately the same number of term babies from the same homes or similar socio-economic families.

### Crippled Children

The demand for services continues to exceed funds available, though Children's Bureau funds were increased from approximately \$960,000 the preceding biennium to approximately \$1,385,000 for this biennium. No new orthopedic clinics were established (43 continued). New rheumatic fever clinics were established in Charlotte and Wilmington, bringing to seven the number of clinics for rheumatic fever or congenital heart diseases.

Toward the end of fiscal year 1957-58 only urgent cases were accepted and the honorarium to the surgeons was cut to 50%. Both Vocational Rehabilitation and the National Foundation for Infantile Paralysis helped with eligible cases during this shortage of funds. During the biennium, the section has established and supported speech and hearing defects clinics at Duke, Charlotte, Asheville, and Greenville. Centers for hearing defects only have been established at N. C. Baptist and N. C. Memorial Hospitals. No special pathologist is available at these hospitals yet.

In the past two years the section provided seven formal seminars on rheumatic fever, six conferences on speech and hearing and seventeen formal discussion periods on orthopedic nursing over the state.

Some of the important totals in direct services to crippled children are as follows:

- 5,179 authorized for services
- 4,472 authorized for out-patient services
- 3,129 authorized for rheumatic fever services
- 886 authorized for speech and hearing services
- 3,167 appliances authorized
- 10,799 new patients to clinics
- 34,006 return visits to clinics
- 5,918 physical therapy treatments prescribed

3,537 diets advised  
216 prostheses advised.

## Heart

As in the past, there were three main activities in the heart program. These were (1) physician education, (2) putting in touch with their family physician persons whose tuberculosis screening X-rays indicated abnormalities of the heart or great vessels, and (3) buying diagnostic equipment and apparatus for heart clinics in hospitals or health departments.

Beginning during the biennium the section paid the salary and travel of a public health consultant nurse in chronic illnesses and the salary of a laboratory technician whose duties are primarily in bacteriology involved in rheumatic fever and heart conditions. The section continued the salary of an EKG technician at one medical school hospital and the salary of a gas analyst at another medical school hospital. Subscriptions to the HEART BULLETIN were furnished 893 general practitioners, internists and cardiologists.

Physician Education. Fifty-three general practitioners were given a three-day refresher course in cardiovascular diseases at Bowman Gray and 108 general practitioners were given three-day courses in the fundamentals of electrocardiography at Duke. Sixty-six general practitioners were given a one-day course in cardiology at N. C. Memorial Hospital. Twelve hundred and fifty-one of 1497 persons whose screening X-rays indicated cardiac abnormalities were put in contact with their family physicians.

## Cancer

One new clinic was opened, Franklin County Clinic in the health department building in Louisburg. This brings to fifteen the number of cancer detection clinics supported by the section. Most of these operate on a weekly basis. During the biennium there seemed to be less outspoken opposition to the clinics by the private practitioners, though that continues to be a real problem in some of the clinic areas. The cooperation of the State and County Chapters of the American Cancer Society in operating the clinics has been fine.

The section has furnished to the Commission to Study the Cause and Control of Cancer in North Carolina what we consider pertinent information on the State Board of Health's cancer program. We have also written in a few expressions of opinion on some features of the program.

Funds for the treatment program during the first year of the biennium were exhausted and the program closed on January 10, 1957 for the rest of the fiscal year. Appropriation for this program was increased from ninety thousand per year to one hundred and nineteen thousand by the 1957 Legislature. Some of the important figures on the program for the past biennium are as follows: Under the treatment program 1226 new and 344 repeat hospital admissions were authorized. The actual number of individuals admitted to hospitals for treatment were 944. The average cost per admission was \$182.44. Under the three-day hospitalization program



there were 978 persons hospitalized for diagnosis at an average cost of \$52.42. Of the 978 cases 452 proved to be cancer and 526 not to be cancer.

Under the casefinding or clinic program the essential numbers of persons and cost per person were as follows: 24,283 clinic visits at a cost of \$5.14 each. (This is for the clinics only and does not include materials, supplies, administration. All of this brings the cost per person seen in the clinic up to about \$8.00.) The cytology department did 19,888 Papanicolaou smears. The readings on these were positive 257, suspicious 241, unsatisfactory 276 and negative 19,114.

### Nutrition

Nutrition is becoming more and more important in the majority of local health department programs. This means that the nutrition services offered by the State Board of Health are being used to better advantage and that more people in the state are receiving nutrition assistance. There is always criticism from counties who desire and need more service because of the small amount of time each month a nutritionist is able to spend in a given county. At the present time, there are two counties with trained nutritionists on the health department staff. The major area of emphasis in the nutrition program is directed toward improvement of the nutritional status of mothers, infants, and children as this is the area where sound nutritional practices will most affect the general health of the majority of persons over a long period of time. Emphasis is also placed on improving the nutritional status of (1) children who are physically handicapped and require careful attention to diet so that growth will not be impaired nor the handicap increased through poor dietary practices; (2) families whose limited income often results in the selection of foods of poor nutritional quality; and (3) the older age group where poor nutritional practice is often a problem of long standing, contributing to chronic and degenerative disease problems.

Immediate objectives include consultation services to local health and welfare departments, schools, hospitals, convalescent and boarding homes, and in-service training in nutrition for the above and similar organizations. Each nutritionist serves, on a request basis, around ten to twelve counties. She has offices in one of the health departments in her area.

Each of the two dietitians serves approximately half of the state. Her chief duties consist of working with and advising the food service personnel in state hospitals and prison camps and county hospitals, boarding and convalescing homes, etc.

The chief of the section is still on leave without pay with the Indian Service of the U. S. Public Health Service. Diligent efforts to secure personnel's approval of a salary range sufficient to get her back to North Carolina are being made. In the meantime, one of the principal nutritionists has done a fine job as acting chief. In 1957 a position of Supervisor of Nutrition Education was established and filled. Also two interships in nutrition were provided for by the 1955 Legislature.

Summary of usual activities shows: attendance of group conferences (chiefly nurses and teachers) 10,701; clinic referrals 8,642; conferences with professional groups (attendance) 7,884 and with non-professional groups 1,840.

In the fall of 1956 the section conducted a workshop for nutritionists and dietitians from the southeastern states. Chief guest teachers were Dr. Grace A. Goldsmith of Tulane and Dr. James L. Andrews, Professor of Biochemistry of the University of North Carolina. Our group participated each year in an institute for food service managers in small hospitals. Field training for nutrition graduate and undergraduate students was continued during the biennium. For the past year or more definite plans are in the making for the establishment of a supervised field training program for recruit graduates in nutrition and for the establishment and operation of a nutrition research program. Each year public health nutrition is being accepted as an integral part of good public health programs throughout the state.

## DIVISION OF EPIDEMIOLOGY

### BIENNIAL REPORT

July 1, 1956-June 30, 1958

During the biennium ending June 30, 1958 the Division Director continued the administration of the State-wide poliomyelitis vaccination program—a carry-over program from the previous biennium. At the beginning of the present biennium, a total of 974,644 ccs. of poliomyelitis vaccine had been purchased with Federal funds under the Federal poliomyelitis vaccination program and distributed to county health departments throughout North Carolina. After June 30, 1957 no Federal funds were available for the purchase of this vaccine; however, vaccine manufacturers were requested to withhold delivery of vaccine ordered from them prior to that date until such time as it was needed and they were instructed to make delivery. As of June 30, 1958, the close of the biennium, a total of 3,435,975 ccs. had been purchased, approximately 204,000 ccs. of which was still undelivered.

As of the close of the biennium, June 30, 1958, a total of 3,302,497 inoculations had been administered in county health departments to children from birth through 19 years of age and to expectant mothers. This includes 362,261 inoculations given to first and second-grade school children under the National Foundation for Infantile Paralysis in 1955. The total of 3,302,497 inoculations represents a total of 1,306,530 first inoculations, 1,136,047 second inoculations, and 859,920 third inoculations.

The incidence of poliomyelitis cases reported since the beginning of the vaccination program (Federal) in October 1955 shows the following:

	Cases Reported	Paralytic Cases Reported	Annual Decrease
Cases reported for calendar year 1955	460	179	39.7 %
Cases reported for calendar year 1956	315	179	0.0 %
Cases reported for calendar year 1957	233	52	70.9 %
Cases reported first 6 months of 1958	12	3	62.5 %

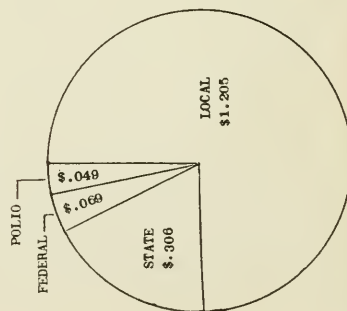
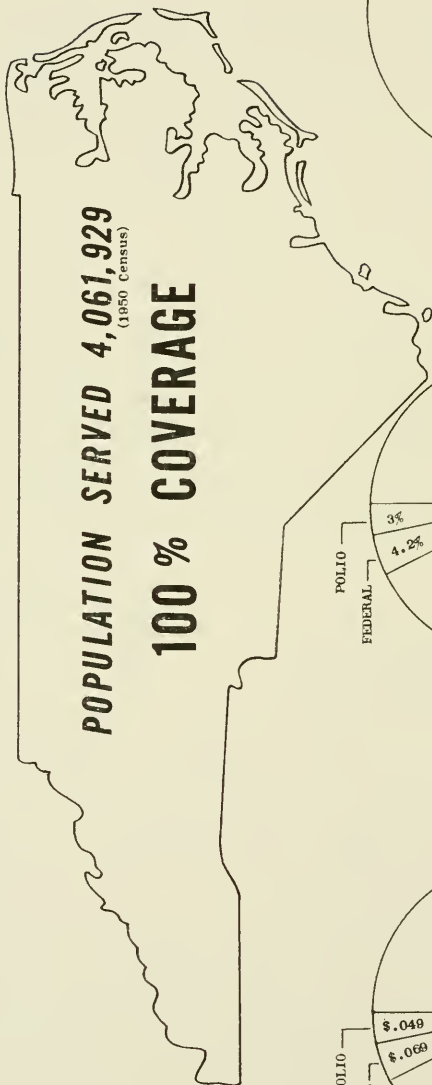
During the biennium (July 1, 1957) an additional section—Chronic Disease-Radiation—was created and made an added responsibility of the Division of Epidemiology. In the first year of its existence, the Chief of the Chronic Disease-Radiation Section has placed into operation four field projects related to the study and control of chronic diseases and, in addition, has materially increased nursing services for the chronically ill in Guilford, New Hanover and Wake counties.

Through a slight increase in funds appropriated by the 1957 General Assembly for occupational health services and a material increase of Federal funds allotted for occupational health from the special allotment to the State for chronic disease services, the Occupational Health Section has been provided with equipment needed and additional professional personnel. Professional personnel added during the biennium for occupational health work include one additional engineer and a trained and experienced occupational nurse. At the close of the biennium, the Occupational

# NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

## FISCAL YEAR 1956 - 1957

TOTAL STATE FUNDS INCLUDING MENTAL HEALTH (REGULAR \$1,132,000 + \$110,000 M. H.)	—\$1,242,000.00
TOTAL FEDERAL FUNDS INCLUDING MENTAL HEALTH	—\$280,306.00
TOTAL POLIO GRANT (TEMPORARY)	—\$200,000.00
TOTAL LOCAL FUNDS	—\$4,896,286.77
TOTAL BUDGET LOCAL HEALTH	—\$6,618,592.77



**COST PER CAPITA ALL FUNDS**

**SOURCE OF FUNDS**

**COST PER CAPITA**

SOURCE OF FUNDS (Even Dollars)				
FISCAL	LOCAL APPROP.	STATE ALLOT.	OTHER	TOTAL
33	\$ 302,442	\$ 75,830	\$ 27,435	\$ 405,709
34	300,752	49,098	13,000	362,811
35	370,375	53,986	61,256	485,618
36	413,225	73,545	80,965	567,736
37	536,650	69,434	209,605	815,690
38	501,530	132,800	289,574	923,904
39	531,530	111,048	456,385	1,108,963
40	949,080	103,000	606,787	1,658,867
41	933,981	109,000	606,847	1,650,228
42	1,049,102	103,000	719,126	1,871,228
43	1,023,441	140,000	722,082	1,885,524
44	1,230,046	150,000	754,004	2,134,051
45	1,350,717	150,000	722,297	2,223,015
46	1,723,000	172,000	699,339	2,594,339
47	1,835,519	172,000	563,194	2,569,713
48	2,125,885	350,000	575,531	3,050,979
49	2,467,660	350,000	539,383	3,357,043
50	2,693,246	1,150,000	539,383	4,372,629
51	2,624,175	1,132,000	547,344	4,303,519
52	3,252,812	1,132,000	575,276	4,960,088
53	3,503,527	1,132,000	577,117	5,212,644
54	3,503,527	1,132,000	584,400	5,220,927
55	4,135,483	1,132,000	584,400	5,851,883
56	4,587,874	1,210,000	280,378	6,078,252
57*	\$4,896,286	\$1,242,000**	\$230,306	\$6,368,592***

Note: Independent Cities are not included in first four yrs. 1933-1936

\*Percentage Local Increase over fiscal year 49 = 98.45

\*\*Includes \$100,000 State Mental Health

\*\*\*Includes \$200,000 Polio Grant (Federal Temporary)

TOTAL

LOCAL

OTHER

STATE

(Yr. 56-57)  
(\$1,242,000)

(Special Polio  
(Grant not included) (\$280,306)

(Yr. 56-57)  
(\$4,896,286)

(Yr. 56-57)  
(\$6,618,592)

Thousands

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57



# DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES — FISCAL YEAR 1956-57

County, City or District	1950 Population	Date Organized	Total Budget		Source of Funds and Amounts							Full Time Personnel					
			Amount	Per Cap.	State Allotment Inc. St. M. H.	Per Cap.	Local Appropriation	Per Fed. M. H. and Other	Fed. Inc. Fed. M. H. and Other	Per Cap.	Polio	H. 0th. M. O. Med. H. Off.	P. N.	Sant.	Clerks and Others	Dont. Wks.	
Alamance	71,220	1938	\$ 117,758.00	1.654	\$ 16,025	.225	\$ 91,381.00	1.283	\$ 7,373	.104	\$ 2,979	.042	1	1	10	es.	6ed.v. 10
Allegh-Ashe-Watauga	48,375	1938-35	45,670.21	.944	18,506	.382	21,503.21	.445	2,449	.051	3,212	.066	1	3	3	3	10
Alleghany	8,155	1938	10,068.00	1.234	4,554	.358	4,440.00	.545	361	.044	713	.087	1	1	1	1	1
Ashie	21,878	1938	17,859.00	.816	7,378	.337	8,000.00	.366	1,154	.053	1,327	.060	1	1	1	1	1
Watauga	18,342	1935	18,120.00	.988	6,574	.358	9,440.00	.515	934	.051	1,172	.064	1	1	1	1	1
Auon	26,781	1937	38,278.84	1.430	8,617	.322	26,589.84	.993	1,516	.057	1,556	.058	1	1	2	2	10
Avery-Mitchell-Yancey	44,801	1935-44-35	37,227.61	.831	18,006	.402	13,922.61	.311	2,158	.048	3,141	.070	1	3	3	3	10
Avery	13,352	1935	10,762.00	.806	5,818	.436	3,300.00	.247	650	.049	994	.074	1	1	1	1	1
Mitchell	15,143	1944	12,383.00	.818	6,031	.398	4,600.00	.304	715	.047	1,037	.069	1	1	1	1	1
Yancey	16,306	1935	12,860.00	.789	6,157	.378	4,800.00	.294	793	.049	1,110	.068	1	1	1	1	1
Beaufort	37,134	1923	51,690.76	1.392	10,333	.278	37,222.76	1.003	2,231	.060	1,904	.051	1	1	5	1	2
Bertie	26,439	1934	28,238.25	1.070	8,679	.328	16,439.25	.624	1,546	.058	1,584	.060	1	1	2	1	20
Bladen	29,703	1921	33,410.58	1.125	9,729	.328	20,041.58	.675	1,849	.062	1,791	.060	1	1	3	1	20
Brunswick	19,238	1949	20,003.92	1.040	7,390	.384	10,154.92	.528	1,215	.063	1,244	.065	1	2	6	20s.	15b.t.
Buncombe	124,403	1913	340,331.00	2.736	40,044*	.322	283,703.00	2.280	12,012	.097	4,572	.037	2	2	2	10	20
Burke	45,518	1937	58,703.60	1.290	11,873	.261	42,740.60	.939	1,913	.042	2,177	.048	1	3	2	1	20
Cabarrus	63,783	1919	112,055.70	1.757	16,327*	.256	90,632.70	1.421	2,351	.037	2,745	.043	1	4	5	20	20
Caldwell	43,352	1937	46,765.00	1.079	11,877	.274	30,664.00	.707	1,979	.046	2,245	.052	1	2	1	1	20
Carteret	23,059	1941	32,299.47	1.401	7,503	.325	22,485.47	.975	1,070	.047	1,241	.054	1	1	1	1	20
Catawba-Lin-Alex	103,807	1938-40-47	139,913.55	1.347	29,106	.280	101,144.55	.974	4,350	.042	5,313	.051	1	11s.	8	30	30
Catawba	61,794	1938	77,394.00	1.252	14,722	.239	57,430.00	.929	2,404	.039	2,788	.045	4	4	4	3	10
Lincoln	27,459	1940	35,449.00	1.291	8,367	.305	24,339.00	.886	1,225	.045	1,518	.055	3	3	2	1	10
Alexander	14,554	1947	17,530.00	1.205	5,967	.410	9,835.00	.676	721	.050	1,007	.069	1	2	2	1	20
Cherokee-Clay-Graham	31,186	1937	43,707.23	1.402	15,521	.498	23,375.23	.750	2,556	.072	2,555	.082	1	4	2	3	20
Cherokee	18,294	1937	22,124.00	1.209	6,914	.378	13,050.00	.713	968	.053	1,192	.065	1	2	1	10	10
Clay	6,006	1937	8,212.00	1.367	4,247	.707	3,000.00	.500	309	.051	656	.109	1	1	1	1	10
Graham	6,886	1937	10,396.00	1.510	4,360	.633	5,000.00	.726	329	.048	707	.103	1	1	1	1	10
Cleveland	64,357	1938	69,362.84	1.078	15,782	.245	47,851.84	.744	2,699	.042	3,030	.047	1	4	3	3b.	20
Columbus	50,621	1921	50,276.00	.993	14,220	.281	30,425.00	.601	2,925	.058	2,706	.053	1	2	2	20	20
Craven	98,823	1921	68,926.00	1.412	12,149	.249	51,900.00	1.063	2,577	.053	2,300	.047	1	4s.	6i.	5b.	10
Cumberland	96,006	1919	156,735.14	1.632	22,603*	.235	105,070.14	1.094	25,060	.261	4,002	.042	1	3	10s.	5t.	20
Currituck-Dare	11,606	1938-37	28,802.66	2.482	8,295	.715	18,771.66	1.617	531	.046	1,205	.104	1	2	1	1	10
Currituck	6,201	1938	14,422.00	2.326	4,250	.685	9,263.00	1.494	290	.047	619	.100	1	1	1	1	1
Dare	5,405	1937	13,940.00	2.579	4,045	.748	9,068.00	1.678	241	.045	586	.108	1	1	1	1	1

Davidson .....	62,244	1917	68,084.00	1,094	14,910	240	27,859.40	.706	2,549	.041	2,766	.044	1	6	3	3b.	0
Dayle-Yadkin .....	37,553	1938-31	45,248.02	1,205	12,888	343	47,981.02	.701	1,519	.041	2,260	.060	4	4	1	2	10
Darle .....	15,420	1938	15,303.00	1,092	5,828	378	8,490.00	.551	589	.039	986	.064	2	2		1	
Yadkin .....	22,133	1931	18,604.00	.841	7,060	319	9,350.00	.422	920	.042	1,274	.058	2	5		2	
Duplin .....	41,074	1934	49,218.00	1,198	11,833	288	32,652.00	.795	2,525	.061	2,208	.054	1	1	1	12b.	1
Durham .....	101,639	1913	274,628.57	2,702	53,724*	528	213,340.57	2,099	3,820	.038	3,744	.037	1	1	8	18es.	2
Edgecombe (Ex. R. M.) ..	68,722	1919	64,453.73	1,665	10,093	261	50,206.73	1,297	2,114	.054	2,040	.053	1	5	2	3	20
Forsyth .....	146,135	1918	310,498.60	2,125	31,829*	218	246,506.60	1,687	26,844	1.34	5,319	.036	1	5	23s.	15e.d.b.	20
Franklin .....	31,341	1930	39,683.20	1,266	9,576	306	26,579.20	.848	1,797	.057	1,731	.065	1	3	14i	10e.	20
Gaston .....	110,886	1928	216,166.64	1,951	25,461*	230	181,626.64	1,639	4,364	.039	4,715	.043		15s.	11ds.	10e.	10
Granville .....	31,793	1919	48,128.60	1,514	10,348*	325	34,359.60	1,081	1,748	.055	1,673	.083	1	4	dn.	ed.	20
Greene .....	18,024	1937	29,153.00	1,618	6,665	370	20,236.00	1,123	1,006	.056	1,246	.069		3		2t.	0
Guilford .....	191,057	1911	435,343.00	2,279	58,271*	305	363,405.00	1,902	6,807	.036	6,860	.036	1	1	7	29s.	20
Halifax .....	58,377	1919	100,763.84	1,726	16,515*	283	77,837.84	1,333	3,417	.059	2,994	.051	1	10	es.	ed.	20
Hancett .....	47,605	1936	52,624.00	1,105	12,807	269	35,108.00	.737	2,807	.018	2,439	.051	1	2	5s.	2	20
Haywood .....	37,631	1934	50,831.00	1,351	10,801	287	36,719.00	.976	1,405	.037	1,906	.051	1	3	2	3b.	20
Henderson-Trans. ....	46,115	1947-37	47,688.37	1,034	14,858	322	28,381.37	.615	1,925	.042	2,524	.055		3	2	2	20
Henderson .....	30,921	1947	27,272.00	.882	8,864	287	15,600.00	.505	1,312	.042	1,496	.048		2	1	1	10
Transylvania .....	15,194	1937	15,435.00	1,016	5,994	395	7,800.00	.513	613	.040	1,028	.068		1	1	1	10
Hertford-Gates .....	31,008	1936-40	38,786.10	1,251	12,568	403	22,407.10	.723	1,769	.057	2,102	.068	1	4	1	2	10
Hertford .....	21,453	1936	21,959.03	1,024	7,083	330	12,393.63	.578	1,178	.055	1,305	.061		2			
Gates .....	9,555	1940	13,735.32	1,437	5,125	536	7,222.32	.756	1,591	.062	1,797	.083		2			
Hoke .....	15,756	1942	25,083.00	1,592	6,412	407	16,552.00	1,050	1,006	.064	1,118	.071		2			
Hyde .....	6,479	1937	12,887.00	1,089	4,298	663	7,564.00	1,167	367	.057	658	.102		1	1	1	10
Iredell .....	56,303	1942	58,321.60	1,047	13,393	249	39,858.60	.708	2,552	.045	2,518	.045	1	5	2	3l.	1
Jackson-Macon-Swain .....	45,356	1934-36-34	60,951.37	1,344	17,800	392	29,821.37	.658	10,183	.225	3,144	.069	1	4	3	30	40
Jackson .....	19,261	1934	18,075.00	.939	6,674	347	9,270.00	.481	917	.048	1,214	.063		2	1	1	10
Macon .....	16,174	1936	17,137.00	1,060	6,234	386	9,011.00	.557	808	.050	1,084	.067	1	1	1	1	10
Swain .....	9,921	1931	13,662.00	1,377	4,892	493	7,466.00	.753	458	.046	846	.085		1	1	1	10
Johnston .....	65,906	1937	46,758.26	.709	16,969	257	23,164.26	.351	3,358	.051	3,267	.050	1	5s.	2	1	20
Jones .....	11,053	1949	15,128.00	1,374	5,406	493	8,169.00	.742	649	.059	904	.082		2	1	10	
Lenoir .....	45,964	1917	56,816.64	1,236	12,987	284	38,924.64	.847	2,637	.057	2,268	.049	1	4	2	2	
McDowell .....	25,720	1945	37,693.00	1,466	8,192	319	27,015.00	1,050	1,035	.040	1,457	.057	1	2	1	1	20
Martin .....	20,622	1949	23,383.00	1,139	6,879	335	14,242.00	.691	1,993	.048	1,269	.062		3	1	1	20
Mecklenburg (Ex. C.) ....	27,938	1937	40,075.32	1,435	9,226	330	27,509.32	.385	1,644	.059	1,696	.061	1	15s.	6	6d.	1
Montgomery .....	63,010	1918	150,667.00	2,391	12,927	205	131,949.00	2,094	2,746	.044	3,045	.048		2	1	1	20
Noore .....	17,260	1942	22,538.12	1,306	6,580	381	14,948.12	.816	791	.046	1,084	.063	1	2	1	1	10
Nash .....	33,129	1928	36,042.00	1,084	9,756	294	23,153.00	.639	1,385	.042	1,712	.052	1	3	1	2	20
Nash (Ex. R.M.) .....	45,134	1915	48,927.00	1,987	11,804	262	32,467.00	.719	2,316	.051	2,340	.052	1	4	2	1	20
New Hanover .....	63,272	1913	145,327.43	2,297	15,755	249	123,981.43	1,960	3,005	.047	2,586	.041	1	1	12s.	10e.b.	20
New Northampton .....	28,432	1917	34,772.95	1,223	8,870	312	22,572.95	.794	1,665	.058	1,665	.059	1	1	3	1	10
Onslow .....	42,047	1941	46,523.70	1,106	9,933	236	32,510.70	.773	1,940	.046	2,140	.051	1	4s.	1	2	

# DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES — FISCAL YEAR 1956-57

County, City or District	1950 Population	Date Organized	Total Budget		Source of Funds and Amounts				Full Time Personnel						
			Amount	Per Cap.	State Allotment M. H.	Per Cap.	Local Appropriation	Per Fed. Inc. and Other	Polio Cap.	Per Cap.	H. Oth. M. P. O. Med. H. H. Off. N.	Sant.	Clerks and Others	Dent. Wks.	
Orange-Person-C-Lee	107,710	1935-37-46	154,899.42	1.438	39,938*	.371	94,355.42	.876	14,853	.138	1 1	14s.	5	6	50
Orange	34,435	1935	33,016.00	.958	8,686	.252	21,500.00	.624	1,236	.086		7	2	3	
Person	24,361	1935	29,141.00	1.196	8,191	.336	18,250.00	.749	1,267	.052		3	1	10	
Chatham	25,392	1937	26,357.00	1.038	8,256	.325	15,400.00	.607	1,297	.051		2	1	1	
Lee	23,522	1946	23,900.00	.991	7,905	.332	13,000.00	.553	1,173	.050		2	1	10	
Pamlico	9,993	1949	13,113.10	1.312	5,115	.512	6,623.10	.663	552	.055		1	1	1	
Pas-Pasp-Perq-Canden-Chow.	51,712	1942-43-37	75,944.90	1.469	22,271	.431	47,410.90	.917	2,671	.052	1	6	2	7b.	
Pasquotank	24,347	1942	30,332.95	1.266	7,671	.315	20,694.95	.850	1,182	.048		3	3	4	20
Perquimans	9,602	1943	14,427.70	1.503	4,966	.517	8,161.70	.850	516	.054		1	1	1	
Camden	5,223	1943	9,454.55	1.810	4,119	.789	4,439.55	.850	287	.055		1	1	1	
Chowan	12,540	1937	17,770.80	1.417	5,515	.440	10,655.80	.850	686	.054		1	1	1	10
Pender	18,423	1941	29,284.00	1.590	7,168	.389	19,779.00	1.074	1,117	.061		2	1	1	10
Pitt	63,789	1917	120,687.00	1.892	16,154	.253	79,792.00	1.251	21,604	.339	1	4	3	5	10
Randolph	50,804	1927	58,396.20	1.150	13,154*	.259	40,914.20	.805	2,010	.040		4	2	3	10
Richmond	39,597	1924	55,135.00	1.392	10,985	.277	40,250.00	1.017	1,865	.047		3	2	2	20
Robeson	87,769	1912	85,554.00	.975	22,695	.259	52,338.00	.599	5,812	.066		6s.	8	3	4ed.
Rockingham-Caswell	85,686	1940-44	100,282.48	1.170	22,917	.267	69,305.48	.809	3,850	.045	1	8s.	4	4	20
Rockingham	64,816	1940	68,039.00	1.050	15,328	.237	47,184.00	.728	2,677	.041		6	3	10	
Caswell	20,870	1944	22,584.48	1.082	17,589	.364	12,462.48	.597	1,173	.056		2	1	1	10
Rowan	75,410	1918	96,292.11	1.277	17,562*	.233	72,766.11	.965	2,855	.038	1	9s.es.	3	3	4ed.b.
Rutherford-Polk	57,983	1924-38	52,477.26	.905	17,116	.295	29,862.26	.515	2,398	.041	1	2	2	2	20
Rutherford	46,356	1924	36,278.00	.783	11,877	.256	20,238.00	.437	1,920	.042		3	1	1	10
Polk	11,627	1938	11,802.00	1.015	5,239	.451	5,227.00	.449	478	.041		4	2	2	20
Sampson	49,780	1913	54,987.81	1.105	13,322	.268	36,046.81	.724	3,025	.061		5s.	1	1	10
Scotland	26,336	1943	42,474.00	1.613	8,942	.340	30,274.00	1.149	1,678	.064	1	4	1	2	0
Stanly	37,130	1937	40,454.29	1.090	10,068	.271	27,129.29	.731	1,452	.039	1	3	1	1	20
Stokes	21,520	1931	29,048.24	1.350	7,170	.333	19,726.24	.917	878	.041	1	2	1	10	
Surry	45,593	1919	65,814.35	1.443	12,102	.265	49,596.35	1.088	1,885	.041		5	2	2	20
Tyrrell-Washington	18,228	1937	28,198.50	1.547	9,855	.541	15,719.50	.862	1,056	.058	1	2	2	2	10
Tyrrell	5,048	1937	9,035.20	1.790	4,050	.802	4,082.20	.809	294	.058		1	1	1	
Washington	13,180	1937	17,378.94	1.319	5,805	.440	9,852.94	.748	762	.058		1	1	1	
Union	42,034	1935	42,465.12	1.010	11,309	.269	26,843.12	.639	2,172	.051	1	3	1	2	10
Vance	32,101	1920	25,291.00	.788	9,363	.292	12,463.00	.388	1,762	.055		2	1	1	10
Wake	136,450	1915	251,690.81	1.845	49,918	.366	191,028.81	1.400	5,697	.042	1 1	8	6	7d.	20
Warren	23,539	1945	25,196.38	1.071	8,252	.351	13,973.38	.594	1,491	.063		2	1	1	10

Wayne .....	64,267	1920	100,504.35	1,564	16,026	.249	78,100.35	1,215	3,450	.054	2,928	.046	1	8a.	4	61.	0
Wilkes .....	45,243	1920	34,950.59	.773	11,661	.258	18,694.59	.413	2,255	.050	2,340	.052	1	2	1	1	0
Wilson .....	54,506	1916	62,017.00	1,138	13,997	.257	42,441.00	.779	2,927	.054	2,652	.048	1	6	2	2	10
Total Counties .....	3,900,190		5,899,149.73	1,513	1,170,519	.300	4,261,054.73	1,093	273,526	.070	194,050	.050	56	7	42	456	1,170
Charlotte .....	134,042	1918	636,119.71	4,746	52,608*	.392	574,046.71	4,283	5,097	.038	4,368	.033	1	2	9	42	20
Rocky Mount .....	27,697		71,759.33	2,591	7,309	.264	61,185.33	2,209	1,683	.061	1,582	.057				5	20
Total Cities .....	161,739		707,879.04	4,377	59,917	.370	635,232.04	3,928	6,780	.042	5,950	.037	1	2	9	47	40
Combined Total .....	4,061,929		6,607,028.77	1,626	1,230,436	.303	4,896,286.77	1,205	280,306	.069	200,000	.049	57	9	51	503	1210
Recaptured and unbudgeted funds .....			11,564.00		11,564												
Grand Total .....	4,061,929		\$6,618,592.77	1,629	\$1,242,000	.306	\$4,896,286.77	1,205	\$280,306	.069	\$200,000	.049	57	9	51	503	1210

\* Includes funds for Training Centers (Thirteen Centers—Total \$24,500.00)

\*\* State Mental Health Funds (\$110,000) included: Buncombe, Durham, Guilford, Wake, Charlotte.

\*\*\* Local Appropriation includes balance (brought forward) of \$199,451.43 from fiscal year 1955-56.

\*\*\*\* Federal Mental Health Funds (\$71,656) included: Alamance, Buncombe, Cumberland, Forsyth, Pitt.

\*\*\*\*\* Temporary Federal Polio Grant—not included in General Fund Grant.

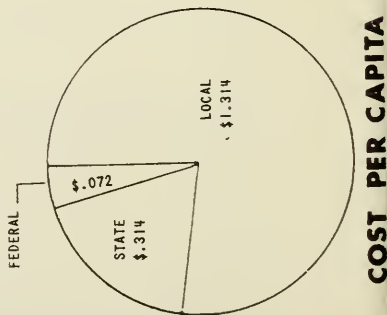
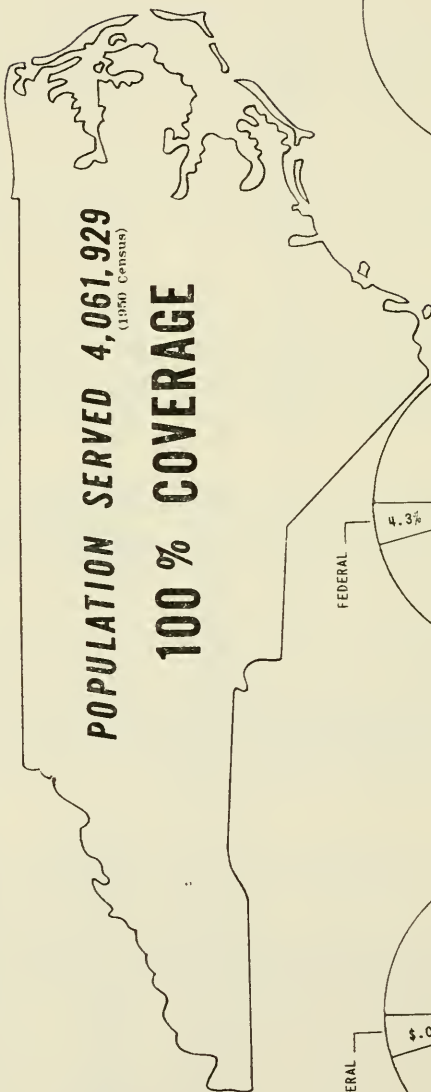
The breakdown of individual counties in the District does not include any special funds, extra funds or balances.

dn—Director of Nurses  
 ds—Director of Sanitation Activities  
 es—Educational Supervisor P.H.N.  
 s—Supervising Nurse  
 v—Veterinarian  
 i—Public Health Investigator  
 b—Bacteriologist  
 d—Dentist  
 ed—Health Educator  
 n—Nutritionist  
 t—Technician  
 M.H.—Mental Health Personnel  
 Ex—Exclusive of  
 C—Charlotte  
 R.M.—Rocky Mount

# NORTH CAROLINA LOCAL HEALTH SERVICE BUDGET

FISCAL YEAR 1957 - 1958

TOTAL STATE FUNDS INCLUDING MENTAL HEALTH (REGULAR \$1,132,000 + \$145,000 M. H.)	___ \$1,277,000.00
TOTAL FEDERAL FUNDS INCLUDING MENTAL HEALTH	___ \$293,820.00
TOTAL LOCAL FUNDS	___ \$5,334,965.17
TOTAL BUDGET LOCAL HEALTH	___ \$6,905,785.17



COST PER CAPITA ALL FUNDS

COST PER CAPITA



Thousands  
7200

	SOURCE OF FUNDS (Even Dollars)				
	FISCAL	LOCAL APPROP.	STATE ALLOT.	OTHER	TOTAL
33		\$ 302,442	\$ 75,830	\$ 27,435	\$ 405,709
34		300,762	49,058	13,000	362,811
35		370,375	53,986	61,256	485,618
36		413,275	73,545	80,985	567,795
37		636,850	69,434	208,605	915,889
38		764,190	12,400	289,574	1,116,364
39		934,045	11,000	111,533	1,156,578
40		943,040	103,000	805,791	1,851,831
41		993,981	109,000	605,847	1,708,828
42		1,048,102	103,000	719,126	1,870,228
43		1,023,441	140,000	722,082	1,885,524
44		1,230,045	180,000	754,004	2,164,049
45		1,300,000	180,000	824,000	2,304,000
46		1,517,013	175,000	699,139	2,391,152
47		1,835,519	175,000	675,350	2,685,869
48		2,125,985	350,000	595,194	3,040,579
49		2,467,860	350,000	575,531	3,393,391
50		2,693,245	1,150,000	523,393	4,366,638
51		3,253,812	1,132,000	466,500	4,852,312
52		3,506,547	1,132,000	575,276	5,213,823
53		3,187,002	1,132,000	577,117	4,900,089
54		3,195,453	1,132,000	286,110	5,301,112
55		4,195,453	1,132,000	285,800	5,613,253
56		4,936,242	1,210,000	300,308	6,446,550
57		5,934,965	1,210,000	280,308	7,425,273
58*		\$5,934,965	\$1,277,000**	\$293,820	\$7,505,785

Note: Independent Cities are not included in first four years 1932-1936

\*Percentage Local Increase over fiscal year 49 = 116.1%

\*\*Includes \$145,000 State Mental Health

TOTAL

LOCAL

OTHER

STATE

33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58

(Yr. 57-58)  
(\$1,277,000)

(Yr. 57-58)  
(\$283,820)

(Yr. 57-58)  
(\$5,334,965)

(Yr. 57-58)  
(\$5,935,785)

# DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES — FISCAL YEAR 1957-58

County, City or District	1950 Population	Date Organized	Total Budget		Source of Funds and Amounts						Part Time		Full Time Personnel			Dent. Wks.
			Amount	Per Cap.	State Allotment Inc. St. M. H.	Cap. Per	Local Appropriation Cap.	Pr Fed. Inc. Fed. M. H. and Other	Per H. Cap.	H. O.	H. O.	P. H. N.	Sant.	Clerks and Others		
Alamance .....	71,220	1938	\$ 117,472.00	1.649	\$ 16,188	.227	\$ 98,719.00	1.386	\$ 2,565	.036	1	10s.	5v	5ed.	10	
Alleg-Ashe-Watauga .....	48,373	1938-35	43,873.61	.907	18,165	.375	23,299.61	.482	2,409	.050	1	3	3	3	10	
Alleghany .....	8,155	1938	9,402.00	1.153	4,546	.557	4,500.00	.552	356	.044	1	1	1	1	1	
Ashe .....	21,878	1938	16,721.00	.764	7,090	.324	8,500.00	.388	1,131	.052	1	1	1	1	1	
Watauga .....	18,342	1935	16,951.00	.924	6,529	.356	9,500.00	.518	922	.050	1	1	1	1	1	
Anson .....	26,781	1937	44,486.97	1.661	8,550	.319	34,480.97	1.287	1,476	.055	1	3	1	2	10	
Avery-Mitchell-Yancey .....	44,801	1935-44-35	34,098.43	.761	17,965	.401	13,985.43	.312	2,148	.048	1	3	1	3	10	
Avery .....	13,352	1935	9,750.00	.730	5,798	.434	3,300.00	.247	652	.049	1	1	1	1	1	
Mitchell .....	15,143	1944	11,730.00	.775	6,025	.398	5,000.00	.330	705	.047	1	1	1	1	1	
Yancey .....	16,306	1935	11,733.00	.720	6,142	.377	4,800.00	.294	791	.049	1	1	1	1	1	
Beaufort .....	37,134	1923	50,558.76	1.362	10,340	.279	37,985.76	1.023	2,233	.060	1	5	1	2	0	
Bertie .....	26,439	1934	28,066.98	1.062	8,621	.326	17,912.98	.678	1,533	.058	1	2	1	1	20	
Bladen .....	29,703	1921	35,623.61	1.199	9,721	.327	24,117.61	.812	1,785	.060	1	3	1	2	10	
Brunswick .....	19,238	1949	19,968.84	1.038	7,350	.382	11,418.84	.594	1,200	.062	2	2	1	2	20	
Buncombe .....	124,403	1913	354,731.00	2.851	27,538*	.221	299,623.00	2.408	27,570	.222	1	2	14v.f.	11ed.	20d.	
Burke .....	45,518	1937	60,613.40	1.332	11,929	.262	46,783.40	1.028	1,899	.042	1	3s.	2	2	20	
Cabarrus .....	63,783	1919	115,239.15	1.807	16,188*	.254	96,723.15	1.516	2,331	.037	1	11s.	4	5	20	
Caldwell .....	43,352	1937	42,860.00	.989	11,938	.275	28,934.00	.668	1,988	.046	1	3	4	2	20	
Carteret .....	23,059	1941	37,739.47	1.637	7,596	.329	29,050.47	1.260	1,093	.048	1	2	1	1	10	
Caswell .....	20,870	1944	24,085.00	1.154	7,445	.357	15,520.00	.744	1,120	.063	1	2	1	1	10	
Catawba-Lin-Alex .....	103,807	1938-40-47	135,344.03	1.304	29,308	.282	101,711.03	.980	4,325	.042	1	12s.	8	4	20	
Catawba .....	61,794	1938	72,655.00	1.176	14,936	.242	55,296.00	.895	2,423	.039	1	6	3	3	6b.	
Lincoln .....	27,459	1940	35,503.00	1.293	8,396	.306	25,911.00	.944	1,196	.043	1	3	2	1	1	
Bertie .....	14,554	1947	18,317.00	1.259	5,976	.411	11,635.00	.799	706	.049	1	3	2	1	1	
Alexander .....	31,186	1937	39,835.41	1.263	15,394	.494	22,410.41	.719	1,581	.050	1	4	2	3	20	
Cherokee-Clay-Graham .....	18,294	1937	20,506.00	1.121	6,806	.372	12,750.00	.697	950	.052	1	2	2	1	1	
Cherokee .....	6,006	1937	7,525.00	1.253	4,220	.703	3,000.00	.499	305	.051	1	1	1	1	1	
Clay .....	6,886	1937	9,694.00	1.408	4,368	.635	5,000.00	.726	326	.047	1	1	1	1	1	
Graham .....	64,357	1938	70,900.00	1.102	15,741	.245	52,475.00	.815	2,684	.042	1	6	3	3b.	20	
Cleveland .....	50,621	1921	51,430.00	1.016	14,170	.280	34,348.00	.679	2,912	.057	1	4	2	3	20	
Columbus .....	48,823	1921	70,799.66	1.450	12,239	.251	55,915.66	1.145	2,615	.064	1	4s.	2	2b.	10	
Craven .....	96,006	1919	155,073.35	1.615	23,193*	.242	110,743.35	1.153	21,137	.220	1	11s.	6i.	2	20	
Cumberland .....	11,606	1938-37	28,342.38	2.442	8,306	.716	19,509.38	1.681	527	.045	1	2	1	1	1	
Currituck-Dare .....	6,201	1938	13,662.00	2.204	4,259	.687	9,113.00	1.470	290	.047	1	1	1	1	1	
Currituck .....	5,405	1937	13,524.00	2.502	4,047	.749	9,240.00	1.709	237	.044	1	1	1	1	1	

Davidson .....	62,244	1917	67,328.10	1,082	15,401	.248	49,361.10	.793	2,566	.041	1	5	3	3b.	10
Dayle-Yadkin .....	37,553	1938-31	47,139.44	1,254	13,136	.350	32,474.44	.865	1,529	.040	1	5	1	2	20
Davie .....	15,420	1938	15,790.00	1,095	5,840	.379	9,350.00	.606	600	.039		2	1		
Dubin .....	22,133	1931	18,625.00	.842	7,296	.330	10,400.00	.470	929	.042		3	1		
Duplin .....	41,074	1931	48,010.10	1,169	12,053	.294	33,526.10	.816	2,431	.059	1	5	1	2	20
Durham .....	101,639	1913	298,209.37	2,394	63,789*	.637	223,597.37	2,259	3,823	.038	1	8	10i.	13b.d.	20
Edgecombe .....	38,722	1919	63,706.30	1,645	10,144	.262	51,470.30	1,329	2,062	.054	1	4	2	4	20
Forsyth .....	146,135	1913	325,225.50	2,226	42,171*	.289	262,555.50	1,797	20,469	.140	1	5	12v.i.	14b.	20
Franklin .....	31,341	1930	38,912.20	1,242	9,623	.304	27,630.20	.882	1,759	.056	1	3	1	2	20
Gaston .....	110,836	1928	241,426.00	2,178	25,860*	.233	211,121.00	1,905	4,445	.040	1	13s.	11ds.	12t.	20
Granville .....	31,793	1919	47,575.00	1,497	9,651	.304	36,213.00	1,139	1,711	.054	1	5	1	1	20
Greene .....	18,024	1937	28,067.78	1,557	6,843	.380	20,262.78	1,124	962	.053	1	3	1	1	10
Guilford .....	191,057	1911	499,850.00	2,616	67,227*	.352	425,771.00	2,228	6,852	.036	1	8	15v.	22t.n.	20
Halifax .....	58,377	1919	103,342.61	1,770	16,532*	.283	83,387.61	1,428	3,423	.059	1	10	3	5b.	20
Hancott .....	47,605	1935	52,585.00	1,105	12,875	.271	37,336.00	.784	2,374	.050	1	5s.	1	2	20
Haywood .....	37,631	1934	51,975.00	1,351	10,774*	.286	39,738.00	1,058	1,408	.037	1	2	2	3b.	10
Henderson-Trans. ....	46,115	1947-37	48,681.03	1,056	14,883	.323	31,884.03	.691	1,914	.042	2	3	2	2	20
Henderson .....	30,921	1947	27,483.00	.889	8,883	.287	17,300.00	.560	1,300	.042		2	1	1	10
Hillsborough .....	15,194	1937	15,264.00	1,005	6,000	.395	8,650.00	.569	614	.041		1	1	1	10
Transylvania .....	31,008	1936-40	41,811.93	1,349	12,469	.402	27,584.93	.890	1,758	.047	1	1	1	1	10
Hertford-Gates .....	21,453	1936	26,602.00	1,240	7,380	.344	18,045.00	.841	1,177	.055	1	1	2	2	20
Hertford .....	9,555	1940	14,692.00	1,538	5,089	.533	9,022.00	.944	581	.061		1	1	1	10
Hoke .....	15,756	1943	24,605.50	1,562	6,401	.406	17,186.50	1,091	1,018	.065	2	2	1	1	10
Hyde .....	6,479	1937	11,286.56	1,742	4,266	.658	6,666.56	1,029	354	.045		5	1	3t.	20
Iredell .....	56,303	1942	62,044.01	1,102	14,041	.219	45,469.01	.808	2,534	.045	1	3	1	3	30
Jackson-Macon-Swain .....	45,356	1934-36-34	58,073.19	1,280	17,646	.389	30,290.19	.668	10,137	.223	1	4	2	1	10
Jackson .....	19,261	1934	18,536.00	.962	6,633	.344	10,988.00	.571	905	.047		2	1	1	10
Macon .....	16,174	1936	17,150.00	1,060	6,164	.351	10,295.00	.631	778	.048		1	1	1	10
Swain .....	9,921	1934	13,736.00	1,355	4,849	.489	8,433.00	.850	454	.046		1	1	1	10
Johnston .....	65,906	1937	49,163.52	.746	16,961	.257	28,918.52	.439	3,284	.050	1	4s.	2	1	20
Jones .....	11,004	1949	14,680.00	1,334	5,379	.489	8,666.00	.787	635	.058	1	1	1	1	10
Lenoir .....	45,953	1917	66,849.77	1,455	13,137	.286	51,090.77	1,112	2,622	.057	5	5	2	3	20
Madison .....	25,720	1945	33,150.00	1,289	8,170	.318	23,949.00	.931	1,031	.040	1	1	1	1	20
McDowell .....	20,522	1949	22,440.00	1,093	6,798	.331	14,683.00	.715	959	.047	2	2	1	1	10
Martin .....	27,938	1917	40,123.30	1,436	9,149	.328	29,348.30	1,050	1,626	.058	1	3	1	1	20
Mecklenburg .....	63,010	1918	161,675.00	2,566	13,702	.217	145,149.00	2,304	2,824	.045	1	15s.	7	5	20
Montgomery .....	17,260	1942	23,827.11	1,380	6,579	.351	16,436.11	.952	812	.047		2	1	1	10
Moore .....	33,129	1928	35,840.00	1,095	9,156	.294	24,698.00	.746	1,386	.042	1	3	1	2	20
Nash (Ex. R.M.) .....	45,134	1915	47,637.00	1,052	11,849	.262	33,488.00	.742	2,300	.051	1	4	2	1	20
New Hanover .....	63,272	1913	158,655.74	2,508	15,788	.250	139,814.74	2,210	3,053	.047	1	10s.	5	11b.t.	20
New Northampton .....	28,432	1917	33,669.00	1,184	9,077	.319	22,976.00	.808	1,616	.051	1	2	1	1	20
Onslow .....	42,047	1941	48,130.91	1,145	10,166	.242	35,864.91	.853	2,100	.050	1	4	1	2	10

# DATA ON FULL TIME COUNTY, DISTRICT, AND CITY HEALTH SERVICES — FISCAL YEAR 1957-58

County, City or District	1950 Population	Date Organized	Total Budget		Source of Funds and Amounts					Part Time			Full Time Personnel			Dent. Wks.
			Amount	Per Cap.	State Allotment Inc. St. M. H.	Per Cap.	Local Appropriation Cap.	Per Fed. Inc. and Other	Cap.	H. O.	H. O.	P. H. N.	Sint.	Clerks and Others		
Orange-Peron-C-Lee	107,710	1935-37-46	155,180.44	1.441	40,118*	.373	100,221.44	.930	14,841	.138	1	1	15s.	5	6	50
Orange	34,435	1935	34,971.00	1.016	8,730	.254	25,000.00	.726	1,241	.036			8	2	3	20
Person	24,361	1935	30,529.00	1.253	8,236	.338	21,000.00	.862	1,293	.053			3	1	1	10
Chatham	25,392	1937	26,537.00	1.045	8,279	.326	17,000.00	.670	1,258	.049			2	1	1	10
Lee	23,532	1946	26,042.00	1.107	7,873	.335	17,000.00	.723	1,169	.049			2	1	1	10
Pamlico	9,993	1949	13,957.00	1.397	5,086	.509	8,320.00	.833	551	.055			1	1	1	10
Pasq-Perq-Camden-Chow.	51,712	1942-43-37	71,344.68	1.380	22,326	.432	46,316.68	.896	2,702	.052	1	1	6	2	7b.	20
Pasquotank	24,347	1942	29,666.00	1.219	7,762	.319	20,696.00	.850	1,208	.050			3	4	4	
Perquimans	9,602	1943	13,627.70	1.419	4,954	.516	8,161.70	.850	512	.053			1	1	1	
Camden	5,223	1943	8,846.55	1.694	4,116	.788	4,439.55	.850	291	.056			1	1	1	
Chowan	12,540	1937	16,840.80	1.343	5,494	.438	10,655.80	.850	691	.055			1	1	1	
Pender	18,423	1941	28,450.00	1.544	7,134	.387	20,199.00	1.096	1,117	.061	1		2	1	1	10
Pitt	63,789	1917	135,189.00	2.119	16,276	.255	83,295.00	1.306	35,618	.558		4	11	3	6ed.	10
Randolph	50,804	1927	62,708.94	1.234	13,242*	.260	47,443.94	.931	2,023	.040	1		3	2	3	10
Richmond	39,597	1924	36,236.00	.915	5,551	.140	28,869.00	.729	1,816	.046	1		3	2	2	20
Robeson	87,769	1912	84,641.00	.964	22,587	.257	56,278.00	.641	5,776	.066			6s.	3	4ed.	20
Rockingham	64,816	1940	81,420.48	1.256	14,783	.228	63,984.48	.987	2,653	.041			7s.	3	3ed.	20
Rowan	75,410	1918	97,408.74	1.292	17,469*	.232	77,121.74	1.023	2,818	.037	1		4	3	3	20
Rutherford-Polk	57,983	1924-38	53,765.33	.927	17,133	.295	34,241.33	.591	2,391	.041			3	2	2	10
Rutherford	46,356	1924	37,209.00	.803	11,872	.256	23,414.00	.505	1,923	.042			3	2	2	10
Polk	11,627	1938	11,750.00	1.011	5,261	.453	6,021.00	.518	468	.040			1	1	1	10
Sampson	49,780	1913	60,626.03	1.218	13,204	.265	44,429.03	.893	2,993	.060	1		5s.	2	2	0
Scotland	26,336	1943	43,249.00	1.642	8,938	.339	32,625.00	1.239	1,686	.064	1		4	1	1	20
Stanly	37,130	1937	41,466.69	1.117	10,141	.273	29,855.69	.804	1,470	.040			2	2	2	10
Stokes	21,520	1931	31,530.00	1.465	7,135	.332	23,523.00	1.093	1,866	.040	1		5	2	3	20
Surry	45,593	1919	72,638.48	1.593	12,068	.265	58,698.48	1.287	1,872	.041	1		2	1	2	10
Tyrell-Washington	18,228	1937	26,693.49	1.465	9,862	.541	15,778.49	.866	1,053	.058	1		1	1	1	
Tyrell	5,048	1937	8,432.20	1.670	4,056	.803	4,082.20	.809	294	.058			1	1	1	
Washington	13,180	1937	16,417.94	1.246	5,806	.441	9,852.94	.748	759	.057			1	1	1	
Union	42,034	1938	50,852.36	1.210	11,289	.269	37,393.36	.889	2,170	.052	1		3	1	2	10
Vance	32,101	1920	26,471.00	.825	9,384	.292	15,368.00	.479	1,719	.054	1		2	1	1	10
Wake	136,450	1918	258,130.17	1.892	59,280	.435	193,104.17	1.415	5,746	.042	1	1	7	6	8b.d.	20
Warren	23,539	1945	24,009.69	1.020	8,175	.347	14,421.69	.613	1,413	.060			2	1	1	10
Wayne	64,267	1920	103,447.23	1.610	16,055	.250	83,942.23	1.306	3,450	.054	1		8s.	3	7t.	0

Wilkes .....	45,243	1920	33,908.87	.750	11,588	.256	20,072.87	.444	2,248	.050	1	2	1	1	0
Wilson .....	54,506	1916	81,024.42	1.487	13,989	.257	64,100.42	1.176	2,935	.054	1	6	2	3	10
Total Counties .....	3,900,190		6,130,737.06	1.572	1,193,891	.306	4,649,951.06	1.192	286,895	.074	8	59	6	41	1220
Charlotte .....	134,042	1918	677,266.88	5.053	62,966*	.470	609,058.88	4.544	5,242	.039	1	2	13	44s.	20
Rocky Mount .....	27,697		84,981.23	3.068	7,343	.265	75,955.23	2.742	1,683	.061	1	5	2	54.	20
Total Cities .....	161,739		762,248.11	4.713	70,309	.435	685,014.11	4.235	6,925	.043	2	2	13	49	33
Combined Total .....	4,061,929		6,892,985.17	1.697	1,264,200	.311	5,334,965.17	1.314	293,820	.072	8	61	8	54	1260
Recaptured and unbudgeted funds .....			12,800.00		12,800										
Grand Total .....	4,061,929		\$6,905,785.17	1.700	\$1,277,000**	.314	\$5,334,965.17	1.314	\$293,820	.072	8	61	8	54	1260

\* Includes funds for Training Centers—One Co. Lab. Total \$25,400).  
 \*\* State Mental Health Funds (\$145,000) included: Durham, Forsyth, Guilford, Wake, Charlotte.  
 \*\*\* Local Appropriation includes balance (brought forward) of \$245,028.58 from fiscal year 1956/57.  
 \*\*\*\* Federal Mental Health Funds (\$90,000) included: Buncombe, Cumberland, Forsyth, New Hanover, Pasq-Perq-Camden-Clowan Dist., Pitt.  
 The breakdown of individual counties in the Districts does not include any special funds, extra funds or balances.

dn—Public Health Nursing Director  
 ds—Director of Sanitation Activities  
 s—Public Health Nursing Supervisor  
 v—Veterinarian  
 i—Public Health Investigator

b—Bacteriologist  
 d—Dentist  
 ed—Health Educator  
 n—Nutritionist  
 t—Technician

M.H.—Mental Health  
 Ex—Exclusive of  
 C—Charlotte  
 R.M.—Rocky Mount



Health Section is operating with a medical director as chief, two engineers, an associate industrial hygienist, and occupational health nurse, and two mobile x-ray unit technicians. This increase in personnel has enabled the Occupational Health Section to greatly broaden the scope of its activities during the past year.

Other professional personnel recruited during the biennium include a medical officer who is a specialist in diseases of the chest, recently promoted to Assistant Director of the Division of Epidemiology and placed in charge of the newly created Chronic Disease-Radiation Section, and also includes a trained biostatistician.

The several Sections of the Division of Epidemiology have the following activities to report for the biennial period:

### **Communicable Disease Control Section**

The North Carolina communicable disease mortality and morbidity experience of the past two years shows favorable progress in reduction of deaths and cases reported; however, the huge epidemic of Asian influenza occurring in the autumn of 1957 and the increasing prominence of the aseptic meningitis group of diseases indicates the continuing importance of communicable disease control in the public health program. In each of the past two years approximately 600 deaths were attributed to the communicable diseases. While no communicable disease is listed among the ten leading causes of death in North Carolina, the toll annually exacted is still a significant one.

In July 1956 the Section was strengthened by the appointment of a Section Chief trained in the clinical, laboratory, and epidemiological aspects of communicable disease control. The newly appointed Chief, while a U. S. Public Health Service officer, had previously served in North Carolina as Field Epidemiologist and as Acting Chief of the Section. Also, for the past several years expansion of activities of the Section have been made possible by assignment of a U. S. Public Health Service officer to the Section. It should be pointed out that dependence on Federal funds and personnel, while adding greatly, temporarily, to the strength of the Section, is hazardous since loss of such personnel and financial support may suddenly terminate the control activities of the Section.

Of special interest during the biennium was the use of Salk poliomyelitis vaccine obtained under the Federal poliomyelitis vaccination program. Such vaccine was made available, without cost, through local health departments to individuals aged 0-19 years and to pregnant women. Poliomyelitis cases fell from 315 in 1956 to 233 in 1957. Of even greater significance is the fact that only 50 of the 233 cases recorded in 1957 were of the paralytic type, while 179 of the 315 reported in 1956 were paralytic. The experience of the first six months of 1958 further indicates the effectiveness of the vaccine in the reduction of cases.

In the summer of 1957, Durham County suffered a large outbreak of aseptic meningitis attributed to Cocksackie B-5 virus. Cases hospitalized totaled 109. An extensive community study revealed that approximately 10,000 persons in Durham County suffered minor to major illnesses from infection by the Cocksackie B-5 virus.

Although morbidity from Asian influenza was high, an estimated 550,000

cases having occurred in the autumn of 1957, the specific mortality was relatively low. Nevertheless, over-all death rates climbed in the months following the peak of the outbreak due in part to elevations in death rates from pneumonia and influenza, and heart disease.

The incidence of diphtheria continued to fall during the biennium. In 1957 only 49 cases, the fewest yet to be reported in North Carolina, were recorded.

In each of the past two years four cases of malaria were brought to the attention of the Section. In 1956, three of these were classified as extra-territorial in type. One case was classified as indigenous; however, laboratory material was not available to confirm the diagnosis. The four cases recorded in 1957 were all of extra-territorial, military origin.

The number of cases of meningococcus infection, whooping cough, measles and scarlet fever were in keeping with the known cyclic behavior of these diseases, in some reflecting an upswing, in others a decline or a plateau-like effect.

Infectious jaundice, made reportable for the first time in 1952, showed a sharp fall in cases to 128 and 110, respectively, in 1956 and 1957 from the high point recorded, 1,048, in 1953.

Of the diseases of animals transmissible to man, tularemia, undulant fever and psittacosis remained important. Little change has been noted in tularemia incidence over the past several years. Some increase in undulant fever is evident, indicating most likely relationship to disease in swine rather than disease in cattle. The sharp reduction in cases of psittacosis from 1956 to 1957 probably reflects better general understanding of this disease and the widespread use of antibiotic-containing bird foods.

Following is a table showing the number of cases of the major communicable diseases in North Carolina for the years 1953-1957 and January-June 1958.

**Summary of Reported Cases of Major Communicable Disease  
North Carolina  
For the Years 1953-1957 and January-June 1958**

Disease	1953	1954	1955	1956	1957	Jan.-June 1958
Diphtheria	130	126	85	70	49	13
Encephalitis	15	47	16	34	55	35
Hepatitis	1,142	807	313	128	110	28
Malaria	48	23	18	4	4	1
Measles	4,984	9,566	1,385	7,630	1,960	4,111
Meningococcus						
Infections	189	179	144	96	112	47
Polio-myelitis	926	732	460	315	233	27
Rocky Mountain						
Spotted Fever	40	28	43	35	37	6
Scarlet Fever	1,335	2,601	2,104	1,206	1,034	979
Septic Sore Throat	81	86	60	35	47	62
Smallpox	1	—	—	—	—	—
Tularemia	15	18	9	16	12	11
Typhoid Fever	47	54	37	23	23	11
Typhus, Endemic	8	9	5	2	5	2
Undulant Fever	5	3	2	10	12	5
Whooping Cough	252	787	1,366	539	161	71

### Tuberculosis Control Section

*Mission.* In general, the mission of the Tuberculosis Control Section is to:

1. Conduct chest x-ray surveys among the general population and special groups, using six mobile x-ray units. Special groups consist of industry, educational institutions, State institutions such as State hospitals, and certain special population groups selected by local health officers.

2. Conduct health educational activities among the population prior to and during surveys.

3. Emphasize continuing follow-up activities of those cases who have been found to have chest abnormalities.

4. Plan chest x-ray surveys with local health officers, county officials, the local Tuberculosis Association, the Medical Society, local Board of Health, Negro leaders, civic organizations, churches, and other persons interested in disease control.

5. Engage in special case-finding projects with other health agencies such as tuberculin testing in Pamlico County.

6. Maintain liaison with State institutions, local health departments, and other agencies for better tuberculosis case finding. These institutions and agencies are: (1) State sanatoriums for the treatment of tuberculosis; (2) State and non-State supported colleges; (3) State mental institutions; (4) Central Prison in Raleigh; (5) State School for Blind and State School for the Deaf; (6) N. C. Tuberculosis Association and local tuberculosis associations; (7) Local health departments; (8) Veterans Administration; (9) State Division of Rehabilitation.

7. Interpret miniature screening chest x-ray films for Forsyth, Cabarrus, Halifax, Stanly, Cumberland, Randolph, Duplin, Granville, Robeson, Edgecombe, Rockingham, and Richmond counties.

8. Interpretation at the Central Office in Raleigh of all miniature survey films made by Section mobile x-ray units. The number so interpreted varies from 206,000 to 300,000 per year.

9. Whenever surplus equipment is available, such equipment, on request, is placed on loan in State or other agencies. During 1956-1958 the Section had on loan x-ray machines at the Duke University Medical School, the Union Memorial Hospital at Monroe, the County Health Department at Halifax, and the Edgecombe County Health Department at Tarboro. Other equipment is on loan at local health departments in Forsyth, Wake and Rockingham counties.

10. Conduct the extension activities formerly conducted by the Central Sanatorium at McCain. These extension activities consist in visiting certain counties at regular intervals.

11. In cooperation with the State Sanatorium System to establish chest clinics in county health departments. These clinics have increased from 28 counties being served by clinics attended by qualified chest physicians to 62; 11 of these have been furnished x-ray supplies by this Section.

12. When funds are available, to furnish counties monetary aid during chest x-ray surveys. During the fiscal year 1957-1958 twelve counties were aided.

13. Pay fees to qualified chest physicians to attend clinics. One physician was employed for two chest clinics during the fiscal year 1957-58.

14. To furnish a physician to attend chest clinics which have been established during the biennium. Clinics attended are located in Asheboro, Louisburg and Oxford.

#### Personnel and Equipment:

*Personnel.* Two doctors; one full-time director; one part-time film reader.

Ten x-ray technicians; one chief; nine full-time technicians and one part-time darkroom technician.

Four full-time clerks; two in the Central Office and two in the field.

One part-time consultant nurse available but not paid by this Section.

Six (6) employees for supporting services; three in the Statistical Section; three in the Laboratory.

Total personnel: 23.

*Equipment.* Six mobile x-ray units for taking the miniature screening films during surveys.

One trailer which houses a 14 x 17 x-ray unit which is used in follow-up activities.

One office trailer; two Chevrolet sedans; three General Electric x-ray machines on loan.

*Accomplishments.* During the biennium the Tuberculosis Control Section conducted 77 surveys and to date the Section x-ray units have entered every county in the State except Surry, Alamance and Lee. Over three million persons have been x-rayed since the Section has been organized.

Colleges and State institutions surveyed are: Wake Forest College, Wake Forest; University of N. C., Chapel Hill; N. C. State College, Raleigh; East Carolina College, Greenville; Appalachian Teachers College, Boone; St. Augustine College, Raleigh; Meredith College, Raleigh; Peace Institute, Raleigh; N. C. School for the Deaf, Morganton; State Hospital at Morganton, Morganton; State Hospital at Goldsboro, Goldsboro; State Hospital at Butner, Butner; State Hospital at Raleigh, Raleigh.

*Budget.* The budget of this Section during the fiscal years 1956-1957 and 1957-1958 was:

	1956-57	1957-58
Federal	\$108,782	\$101,500
State	33,016	36,856
	<hr/> \$141,798	<hr/> \$138,356

The Federal budget has decreased by \$6,000 since 1955-56 and the State budget has increased by over \$3,400. The total amount of the appropriation is barely sufficient to support the tuberculosis program. This Section was fortunate to share in unexpected funds during the fiscal year 1957-58 and hence was able to aid in supporting 11 chest clinics to a moderate degree and also to give monetary aid to 12 counties during chest x-ray surveys (see paragraphs 11 and 12). Indications at this time are that the Federal budget will be reduced by one-third, which means that there must be a general curtailment of this program.

The cost (less depreciation of equipment) of the x-ray examination of one person for the biennium was \$0.63. This cost includes all expenses



involved in rendering the person x-rayed a final diagnosis and advice as to further treatment.

*Findings.* The Section surveys show that for the fiscal year 1956-57 there were 4.3 persons in every 1000 x-rayed who had some evidence of tuberculosis of the lung. This rate compared with a rate of 5.0 for the fiscal year 1955-57. These rates are the survey results when there was an effective follow-up. Such follow-up is done in mass surveys where the Tuberculosis Control Section furnishes follow-up personnel. As the total number of persons x-rayed during the biennium was 442,769, it follows that a large number of persons were placed on the alert against tuberculosis and were advised to continue observation.

A tabulation of x-rays made in the field by our units, x-rays interpreted by the Section for counties and other agencies, and those made by Section units on loan follows:

Miniature x-ray films made by Section units in the field	442,796
Large films estimated to have been made by Section units in follow-up activities in the field	5,000
Miniature films made by x-ray units on loan (Duke Hospital, Union Memorial Hospital, Halifax County Health Department, Edgecombe County Health Department)	36,810
Miniature films read by the Section for county health departments (12 in number)	58,446
Total	543,025

### Public Health Statistics Section

This Section was established in February 1950. All essential statistical services of the State Board of Health, including vital statistics, were centralized and assigned to this Section. Since that time increased statistical activities have been performed for an ever-growing number of health programs (12 at present) plus many special research study projects.

Long-time objectives in vital statistics, such as placing local registrar duties in the local health departments, securing completely accurate registration of births, deaths, and fetal deaths more promptly, and raising the standards for filing delayed birth certificates, are being accomplished. As of June 30, 1958, seventy-seven counties had been consolidated with the health director serving as local registrar (69 counties as of the last biennium). Less than 10 per cent of the birth and death certificates are now filed late and they are more complete and accurate, thereby, reducing the number that have to be amended by prescribed rules and regulations or by court order—a costly and time-consuming task. The fact that governmental agencies accept a higher percentage of the delayed certificates filed in accordance with stricter regulations more than compensates for the revisions made governing the type and amount of evidence necessary to prove facts of birth. Although a few registers of deeds objected to the revisions, the vast majority were very pleased with the changes made.

There were more certifications and verifications of birth and death certificates handled during the last biennium than in any other two-year period since the vital statistics laws became effective in October 1913. This was caused by the increased number of births and deaths on file and the



increased uses made of birth and death certificates. More delayed birth certificates (45,000) were filed than ever before.

The crude birth rate in 1957 was 25.6 per 1000 population and the crude death rate was 7.9. North Carolina continues to have one of the highest ratios of births to deaths in the nation. In 1957, there were 323 births for every 100 deaths, whereas in the nation the ratio was 260 to 100. This is primarily due to our relatively younger population; however, the year 1957 saw a significant increase in the number of deaths and a corresponding decrease in the number of births.

The infant mortality rate (30.6 infant deaths per 1000 live births) was higher in 1957, whereas the maternal mortality rate (7.2 maternal deaths per 10,000 live births) was lower than in 1955. Forty-one other states had a more favorable infant death rate and forty-three states had a lower maternal rate. It should be kept in mind that this low rank in the nation is partially due to the higher proportion of non-whites in our population (about 26 per cent) than in the nation (about 10 per cent). The infant and maternal rates among the non-whites are two and seven times as high, respectively, as among the whites.

The ten leading causes of death with rates per 100,000 population are shown below. Again, as during the last two bienniums, tuberculosis is not found in the top ten killers. The influenza epidemic which began in the fall of 1957 resulted in a shifting of positions as to rank between influenza and pneumonia and non-motor vehicle accidental deaths. Nephritis and nephrosis was replaced by postnatal asphyxia and atelectasis as the tenth leading cause of death.

Cause	Number	Rate
Diseases of the heart	12,304	278.5
Vascular lesions affecting central nervous system	4,733	107.1
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	4,091	92.6
Influenza and pneumonia	1,721	39.0
All accidents (except motor vehicle)	1,272	28.8
Motor vehicle accidents	1,137	25.7
Diseases of arteries	743	16.8
Immaturity	677	15.3
Congenital malformations	548	12.4
Postnatal asphyxia and atelectasis	538	12.2

The Central Tabulating Unit prepared 2,113 medical and health tabulations for various program directors, governmental agencies and other concerned people. Over 200 tabulations were made as a result of requests for special information not routinely available in the monthly, quarterly, and annual reports.

The 1957 General Assembly enacted legislation requiring the centralized reporting of all divorces and annulments of marriage, effective January 1, 1958, to the Section. These events will be machine processed and indexed for statistical uses and issuance of certified copies. This legislation was much needed and was popularly acclaimed by social workers, attorneys, governmental agencies, and other professions. A similar law is needed pertaining to the centralized reporting of all marriages in the State.

During the biennium four statistical studies initiated during the last biennium were continued. They are as follows:

1. *Fetal and neonatal mortality study.* An important aim of this study is to gain more knowledge about those factors which may influence prematurity and mortality. The long range objectives of the study are to promote better maternal and child care by studying both the characteristics and their inter-relationships of this large group of fetal and neonatal deaths in North Carolina.

2. *Automotive crash injury research project.* This study seeks to learn more about injuries and deaths due to the engineering design of automobiles and then reduce such injuries and deaths by elimination or re-design of certain dangerous parts.

3. *Neonatal death study of infants dying in those North Carolina hospitals delivering 100 or more children per year.* This study is conducted in cooperation with a committee appointed by the State Medical Society and is directed toward acquiring more detailed information regarding neonatal causes and ways of reducing this total. It has already proved useful in the detection of unregistered births and neonatal deaths.

4. *Anesthesia death study involving all deaths in North Carolina due to operations and post-operative conditions (deaths within 72 hours of operation).* This is another study done in cooperation with a committee of the State Medical Society.

In addition, two new study projects were initiated in which the Section supplies the required tabulating and statistical services:

1. *Pamlico County tuberculin testing program.* The objectives of this study are to determine the amount of existing tuberculosis infection in the population; the rate of conversion to active tuberculosis by age-race-sex groups; to determine the reliability of patch testing versus skin testing for detecting routine reactors; and to determine the reaction to different amounts of tuberculin. All residents one year of age and over are tested. The skin and patch tests, along with chest x-rays for selected individuals, are used in this study.

2. *Wilson County tuberculin survey.* Selected families in the population are drawn by a random sampling technique and given tuberculin tests. The purpose of the study is to determine tuberculin sensitivity by age-race-sex in the county and to relate these sensitivity levels to the tuberculosis morbidity in the hope of predicting future morbidity rates for a given population.

The average number of years remaining at birth has continued to increase since the turn of the century. The latest official data for the U. S. reveals that the life span has increased by over 20 years in each color-sex component since 1900, with the non-white males and females making the greater relative increases.

Color and Sex	Average Remaining Lifetime in Years	
	1900	1955
White male	46.6	67.3
Female	48.7	73.6
Non-white male	32.5	61.2
Female	33.5	65.9

### Occupational Health Section

According to plans outlined in the previous biennial report, the Occupational Health Section has grown considerably in size and capabilities during the past two years. The addition, to the staff, of two industrial hygienists and a nursing consultant has increased the scope of this Section in both the technical and medical fields. This Section's assistance to North Carolina industry was previously limited to a relatively small group of selected plants engaging in the dusty trades, representing a very small segment of the total industrial population. This Section's staff for the evaluation of occupational health hazards is in a position to offer consulting service on situations concerning radiation exposures, noise and many other industrial hygiene problems. Modern measuring and sampling devices have been acquired to assist engineers in accurately determining the extent of potentially hazardous exposures. Personnel and radiation detection instruments are available for monitoring medical, dental or industrial x-ray installations and industrial locations where radioactive materials are being used. Laboratory facilities are available to determine the presence and extent of a worker's exposure to toxic materials encountered in his occupation.

A combination of technical and medical advice is offered to those plants interested in abating occupational disease and improving the well-being of their employees.

Occupational health has received considerable state-wide recognition during this biennium in the establishment of the Governor's Conference on Occupational Health and the Governor's Occupational Health Council. It is apparent that North Carolina's desired industrial growth will necessitate increased activities in this field. The Conference was first held in 1957 and has become an annual activity sponsored by the State Board of Health and the University of North Carolina. The Occupational Health Council with forty-two members from industry, state agencies, the medical profession and colleges, had its first organizational meeting in 1958. The establishment of both the conference and the council were due largely to the efforts of the Chief of this Section.

Even though the area of activity of this Section has enlarged, the long recognized silicosis and asbestosis problems associated with the so-called "dusty trades" are not being overlooked. Routine engineering inspections are continuing and it is anticipated that future medical-technical studies will improve the Section's services to this type of industry. Annual x-ray examinations continue to be made on all employees in these dusty trades and medical case histories are provided for compensation purposes.

Increased cooperation with the N. C. Department of Labor during this biennium has resulted in the elimination of many industrial hazards that have long been recognized but not corrected.

All requests received by the State Board of Health for assistance with air pollution problems have for several years been answered by this Section. This matter has grown in importance with the influx of industry to this State. A state-wide air pollution survey is being made by the State Board of Health and the U. S. Public Health Service and this Section will assist in that project.

X-rays taken by mobile unit in dusty trades .....	9,671
X-rays taken in non-dusty trades .....	7,800
Pre-employment x-rays from other sources .....	1,686
Employees issued work cards .....	11,272
Employees recommended to be removed from dusty trades .....	79
Employees recommended for further Sanatorium studies .....	83
Employees with silicosis .....	35
17 First stage silicosis	
16 Second stage silicosis	
2 Third stage silicosis	
Employees with asbestosis .....	3
2 First stage asbestosis	
1 Second stage asbestosis	
0 Third stage asbestosis	
Other pathology .....	60
12 TB-All stages and arrested	1 pulmonary emphysema
35 Heart pathology	2 tumor
2 Pneumonitis	5 Lung etiology undetermined
2 Bronchiectasis	
1 Coccidioidomycosis	
Plants visited for x-rays .....	277
259 silica plants	
8 asbestos plants	
10 non-dusty plants	
Plants visited for engineering purposes .....	143
Radiation monitoring surveys .....	54
Medical case histories submitted to Industrial Commission .....	44
Supplementary medical case histories submitted to Industrial Commission .....	0
Court hearings attended and testimony given by Section Chief .....	0
Court hearings attended by member of Advisory Medical Committee .....	22
Conferences (general) .....	5
Conferences held with Advisory Medical Committee .....	1
Conventions attended .....	4
New personnel .....	3

### Veterinary Public Health Section

This Section has the responsibility for planning and coordinating activities designed to eradicate or control those diseases of animals which are transmissible to man either by direct contact or indirectly through food products of animal origin or insect vectors. There are over 80 diseases of animals transmissible to man. A brief summary of the activities of this Section follows:

*Rabies.* Rabies continues to be a problem in several counties although much progress has been made toward its control during the biennium. Assistance was requested and given to officials in 43 counties relative to means and methods of providing adequate control measures. Several counties appointed dog wardens and constructed dog pounds during this period. The State Board of Health in 1957 recognized the immunity produced by chick embryo origin dog vaccine for a period of three years. The



latter action has greatly encouraged dog owners to keep their pets adequately immunized. The number of human antirabic treatments dispensed by the State Laboratory of Hygiene continues to decrease, with only 95 complete treatments dispensed during the first six months of 1958. This decrease in human treatment is an excellent indication of the effectiveness of a rabies control program. Rabies among the wildlife (foxes) in a few northwestern counties continues to be a threat to the public health and livestock economy.

*Anthrax.* Surveillance of the industrial anthrax health problem, discussed in the 1954-56 biennial report, continued. Another textile mill processing goat hair moved from Philadelphia to Shelby and two carpet plants processing foreign imported wool moved to Burnsville and Aberdeen during the biennium. Anthrax vaccine evaluation studies are being continued on the employees of the animal hair plants along with sterilization of the goat hair and bacteriological surveys of the plant environment. An employee educational program is being planned in the carpet plants where the health hazard is considered small.

*Leptospirosis.* A research project was completed with the cooperation of other state and Federal agencies to determine if wildlife on the Fort Bragg reservation were infected with leptospirosis, an infectious disease of animals communicable to man, responsible for "Fort Bragg Fever" epidemics during the war. Several strains of organisms were isolated from fox and raccoon.

*Psittacosis.* Surveillance of the psittacosis problem continued during the biennium. North Carolina reported 75 cases during 1956. This was the highest number reported in the United States and the majority of these cases had had contact with infected parakeets. Human cases have decreased during 1957 and 1958, which may be attributed to the widespread use of antibiotic coated parakeet seed recently introduced on the market. Two special studies were carried out by the Section during the biennium relative to the treatment of infected parakeets and pigeons with antibiotics.

*Brucellosis.* Several human cases of brucellosis were investigated. The major source of infection was contact with infected animals and their discharges rather than the consumption of raw milk.

*Meat Inspection Programs.* The organization of better local meat inspection programs was emphasized during the biennium, and a model county ordinance was developed with the assistance of the Institute of Government. Efforts to stimulate Congress to approve a compulsory Federal poultry inspection program were successful.

*Rendering Plant Inspection.* The Section Chief represented the State Board of Health on the inspection committee authorized by the 1955 General Assembly to inspect all rendering plants annually.

*General.* Epidemiological investigations were carried out on several other human diseases contracted from animals. Among these were tularemia, encephalitis, ringworm, Rocky Mountain spotted fever and cat scratch fever.

Scientific papers were presented and published on brucellosis, anthrax, psittacosis and rabies. Scientific exhibits on rabies and leptospirosis were



prepared and exhibited at three state conventions. Numerous talks were given by the Section Chief during the biennium before civic clubs, medical societies, official and voluntary agencies, and to public health students at the University of North Carolina School of Public Health.

#### Venereal Disease Control Section

The total reported venereal disease morbidity in North Carolina has continued to increase during the biennium 1956-1958. The State has reported 9,356 new cases of syphilis during the biennium as compared to 8,126 cases reported for the preceding biennium, 1954-1956. This increase is largely due to more intensive case-finding activity on the part of venereal disease workers. An effort has been made to decrease the incidence of new infections through epidemiologic investigation and education and to reduce the vast reservoir of untreated late syphilis through selective serologic surveys.

The total number of treatments given for venereal disease was 40,478 for the biennium as compared to 42,651 for the last biennium. It may be noted, however, in the following chart, that prompt and efficient epidemiologic investigation has continued to force a decline in the number of primary and secondary syphilis (infectious) cases reported. Members of the field staff of this Section offer assistance to all counties in providing this necessary investigation.

Reported Cases of Venereal Disease  
Fiscal 1957-1958

	1957	1958	Per Cent Change
Primary and secondary syphilis	210	190	— 9.5
Early Latent Syphilis	894	839	— 6.1
Late Latent and Other Late Syphilis	3,180	3,537	+11.2
Congenital syphilis	283	223	—21.2
Total Syphilis	4,567	4,789	+ 4.9
*Gonorrhea	14,304	15,998	+11.8
Granuloma Inguinale, Lymphogranuloma Venereum, and Chancroid	168	164	— 2.4

\*Includes Epidemiologic Treatment

Prevention and Control Centers located at Charlotte, Durham, Greensboro, and Wilmington continued their operation, despite the fact that in two centers there were only part-time physicians and a third center lost its venereal disease clinician in December 1957. For fiscal 1957-1958 a total of 72,445 diagnostic services were performed and 11,394 received treatment at these centers.

Reporting of cases by private physicians continues to reflect little of the true incidence of venereal disease. In the last two months of biennium, a new private physician report form was devised. Early reports show a marked increase in private physician reporting of syphilis. An evaluation of the technique will be made after twelve months of operation.

**Number and Per Cent of Total Syphilis Cases Reported  
By Private Physicians and Clinics, by Stage, Diagnosis, and Fiscal Year  
(Includes Cases Reported by Military Installations)**

	1957				1958			
	Pvt. No.	Md. %	Clinic No.	%	Pvt. No.	Md. %	Clinic No.	%
Primary and Secondary Syphilis	45	21.4	165	78.6	30	15.8	160	84.2
Early Latent Syphilis	292	32.7	602	67.3	195	23.2	644	76.8
Late Latent and Other								
Late Syphilis	960	30.2	2220	69.8	746	21.0	2791	79.0
Congenital Syphilis	53	18.7	230	81.3	45	20.2	178	79.8
Total Syphilis	1350	29.5	3217	70.5	1016	21.2	3773	78.8

Selective serologic survey activity has been intensified during this biennium. Selective serologic testing has been accomplished in fifty counties with approximately 113,500 persons tested and approximately 10,950 (9.6%) found in need of medical evaluation. This program has applied a newly developed serologic testing technique to the survey of migratory farm workers. A total of 2,107 workers were tested, using the Rapid Plasma Reagin Test which can be completed in five minutes. In the group tested, 636 (30.1%) were found in need of medical evaluation.

This State has continued to train venereal disease investigators in a cooperative program with the U. S. Public Health Service. A total of twenty-three trainees have completed their work in North Carolina and have been accepted by the U. S. Public Health Service for venereal disease activity in other states.

A total of 36,658 epidemiological investigations were assigned during the biennium. Public health clinics examined 343,133 patients for venereal disease and found 8.7 per cent infected.

The educational program is threefold: (1) Education of the professional (doctors and nurses) with lectures and films by the Section Chief; (2) Patient education through the venereal disease worker; (3) Education to the schools and general public by members of the venereal disease staff, using films and lectures.

Other services, other than those previously mentioned, rendered by the Section were medical consultation to local health departments, private physicians, hospitals, clinics, and military establishments.

The total expenditures for the venereal disease program for the 1956-1958 biennium was \$260,061. Of this amount, \$38,502 was State funds and \$221,559 Federal funds. Not included in this total are salaries of the Section Chief, two health program representatives and seven district epidemiologists who are assigned to North Carolina by the Venereal Disease Branch, U. S. Public Health Service.

During the biennium (August 1, 1957), Dr. Bernard F. Rosenblum, U. S. Public Health Service, replaced Dr. Clifford Cole as Section Chief. Dr. Cole was transferred to the Regional Office of the U. S. Public Health Service in Atlanta, Ga.

### Accident Prevention Section

Home and farm accidents continue as a major source of mortality, injury and disability in North Carolina. Most North Carolinians have been made aware of the importance of the motor vehicle as a cause of accidental death in the State. It is hoped that increasing numbers are now recognizing that accidents occurring in the home and on the farm represent the second greatest source of accident mortality. Because of the site of the occurrence, the circumstances surrounding the accident, and the age of the individual most likely to be involved, accidents in the home and on the farm have been, to a large measure, "overlooked" in this state and in the United States.

It is perhaps as a source of non-fatal accidental injuries that home and farm mishaps make their greatest impact felt on the health of residents of this state. Studies completed in connection with the National Health Survey now being conducted by the U. S. Public Health Service and the Bureau of the Census have shown clearly that home and farm accidents lead all other types of accidents as a source of injury. These accidents are also recognized as a major contributor to the growing numbers of permanently disabled persons in the state.

In the year 1957 in North Carolina all accidents caused the deaths of 2,345 residents of the state. A total of 1,113 of these deaths were caused by motor vehicle; 777 deaths were due to home and farm accidents. The remaining 455 accidents claimed lives in parks, public buildings and other public places, and in industry. In analyzing home and farm accident deaths according to the age of the victim, one finds generally that the young and the old bear the greatest burden of accident mortality. Since children and those in the later years of life spend proportionately a much greater share of their time in the home, their unfavorable experience with this type of accident is easily understood. Death rates for home and farm accidents are highest for the groups under the age of five years and past the age of fifty-five years.

Statistics regarding accidental injury in the home and on the farm are not available for the entire state since there is no single agency or mechanism for the reporting of non-fatal accidental injuries occurring in these sites. Estimates based on nation-wide studies would place the number accidentally injured in the home and on the farm in North Carolina at a minimum of 116,000 persons annually with the maximum estimate reaching the staggering total of 505,000 persons per year. Both of these totals are far in excess of estimated or reported accidental injuries due to accidents occurring on the highways, in industry, or elsewhere.

For eighteen months of the past biennium, the Section staff has consisted of one health educator and one stenographer-clerk full time, and a physician on a consultant basis. The consultant nurse resigned in December 1956 and the position was not filled due to insecurity of funds to support the program.

During the biennium, the staff worked with health department staffs in thirty-seven counties on a variety of accident prevention activities. In some instances, it was conducting in-service education in accident prevention; in others, it was in relation to some specific accident problem.

All local health departments have received, periodically, home safety educational material. In addition, all local health departments were given a one-year subscription to "Home Safety Review", a monthly publication of the National Safety Council.

In July 1956, the Section sponsored its fourth and last short course at the University School of Public Health. This year it was set up as Special Fields in Accident Prevention. Sixty-six public health workers were enrolled. The Section provided scholarships for thirty North Carolina nurses. The staff participated in the planning of the course and in the instruction, and also assembled kits of material for all enrollees.

A special conference on accident prevention was conducted for the State Board of Health consultant personnel. In addition, the Section staff has participated in the staff conferences of the Nutrition Section, the Nursing Section, and the Division of Sanitary Engineering.

The Section conducted a number of joint activities with the North Carolina Agricultural Extension Service. Leadership training courses for home demonstration club health and safety chairmen were taught by staff members in a dozen counties. County home and farm agents were given assistance in planning home and farm safety exhibits in twenty-two counties. Extension agents in fifteen other counties were assisted in planning demonstrations in home and farm safety.

Staff members have been program participants at several national, regional and state meetings during the past biennium. These include the American Public Health Association, the National Safety Congress, Southern Branch of American Public Health Association, Southern States' Safety Conference, North Carolina State Medical Society, and North Carolina Public Health Association.

Staff members have served as guest lecturers on home accident prevention at the Rex Hospital School of Nursing, Duke School of Nursing, and at North Carolina College.

The Section has worked very closely with other safety organizations in the State. Staff members have served as members of the program committee of both the North Carolina State-wide Industrial Safety Conference and the North Carolina Safety School and have also been program participants in these annual safety events. Staff members have also been program participants at all local county safety councils—Wake, Pitt, and Lenoir.

One Section staff member served as Director of the N. C. Home Safety Inventory, sponsored by the National Safety Council. This was an effort to learn what agencies are conducting home safety activities and what kind of activities they are conducting.

Through cooperative efforts of the Section, the Onslow County Health Department, and the Onslow Memorial Hospital, a poison control center has been established at the Onslow Memorial Hospital in Jacksonville. This is the second poison control center to be opened in the State.

Special epidemiological studies have been made of fatal accidents among the aging and of fatal accidents experienced by farm people.

The Section developed two exhibits during the biennium entitled "Home Hobby Hazards" and "Accidents—Unnoticed Problem of the Aging." These exhibits have been shown at the annual meetings of the North Carolina Public Health Association, Southern Branch—American Public Health



Association, North Carolina Medical Society, and at the North Carolina State Fair, Haywood County Health and Safety Fair, Buckhorn Community Fair, Boiling Springs Health Fair, and at the Robbinsville Fair.

Staff members have been guest speakers at meetings of such groups as auxiliaries to medical societies, granges, parent-teacher associations, business and professional women's clubs, and many others.

### **Chronic Disease—Radiation Section**

The Chronic Disease—Radiation Section was established in July 1957 and had as its initial objectives:

1. To organize activities within the State Board of Health for control of radiation problems as they arise or are anticipated in North Carolina.
2. To study various aspects of chronic disease in North Carolina which are particularly of epidemiologic importance or lend themselves to case-finding activities.

The initial objectives of the program have largely been realized or are well under way. The activities concerning radiation are as follows:

1. Funds were obtained and various consultations arranged for setting up laboratory procedures for analyzing radiation in water, food, and sewage. Equipment was purchased, personnel was trained, and the program is now being actively carried out.

2. A program of inspection of x-ray and fluoroscopic equipment in health departments has been instituted by means of using engineering personnel in the Occupational Health Section. Personnel has been trained and equipment has been purchased for this purpose. Inspections have been conducted since last January.

3. Equipment has been purchased for the Division of Sanitary Engineering and assistance has been given for setting up an extensive program for in-service training in the fundamentals of radiological health for their supervising engineers and sanitarians, and county sanitarians; these several groups comprising 238 individuals. Through this Division, educational facilities have been extended to water works employees, high school science teachers, and county health departments.

4. Educational opportunities have been provided to a number of members of the staff of the State Board of Health. These have included 15 individuals being sent to night school at State College for a 15-hour course last year, an engineer in Occupational Health has attended a short course in Cincinnati and Washington, D. C., a technician in the Tuberculosis Section has attended a short course in Washington, D. C., and an engineer in Sanitary Engineering has attended a short course in Cincinnati. Also, the Chief of the Veterinary Public Health Section has attended a short session at Oak Ridge, Tenn. Arrangements were made so that members of Occupational Health and Sanitary Engineering have accompanied AEC inspectors who came into North Carolina to inspect isotope usage. The Section collaborated with the School of Public Health at Chapel Hill in presenting a three-day seminar on radiation. This was held at Chapel Hill last winter. The Section Chief obtained additional information on the practical aspects of radiation by spending almost four months in the South Pacific Proving Grounds for bomb testing at which time he received valuable information on practical monitoring for radiation in cloud tracking



and in learning of the practical problems involved in atomic warfare. A consultant on radiation has been employed—Mr. Jack Storey of the Department of Physics at State College.

The Section Chief has been given the responsibility for the RADEF program in Civil Defense, and in cooperation with others at the State Board of Health has developed a RADEF plan for the State. We are now in the process of implementing this by utilizing the administrative structure of Sanitary Engineering. A committee consisting of experts on radiation throughout the State, headed by Dr. Robert Reeves, Duke Hospital, has met repeatedly and has compiled a set of regulations controlling radiation in North Carolina. This will be proposed to the State Board of Health for adoption and promulgation. The committee has also recommended basic enabling legislation to be proposed to the next Legislature. This, it believes, will be necessary to insure enforcement of the regulations.

The Section has also instituted a number of studies, surveys, and case-finding programs regarding the various chronic diseases:

1. It developed a method for using scientific sampling techniques for measuring the tuberculin sensitivity of a community. This is being used in a Wilson County tuberculin survey. Four nurses have been employed for going into homes to tuberculin test those families selected by the sampling experts in the Institute of Statistics. This survey is nearly complete and is regarded as an important innovation in the study of the occurrence of tuberculosis in a community. It is hoped that a formula can be developed for predicting the number of cases of tuberculosis that will develop each year. A diabetes case-finding study among older people is being conducted through the Wake County Health Department. Nurses are being sent into the homes of patients 65 years of age and older to obtain blood for study. The names of these individuals are being obtained from several sources but particularly from the county welfare office. At this date, approximately 5 per cent of those tested have diabetes, and, accordingly, this is an unusually fruitful group for study. The technique should have application to all other health departments in the State.

This Section has been cooperating with the Tuberculosis Control Section in developing chest clinics throughout the State and the Section Chief conducts several of these clinics. He also cooperates with the Section Chief of the Tuberculosis Control Section in working on the Pamlico County tuberculin survey, which has its objective as tuberculin testing all members of the county population. This is being done in connection with the North Carolina Tuberculosis Association and the Sanatorium System. Work is being done on arteriosclerosis, a method having been developed to compare amounts of atherosclerosis as seen on 70-mm. chest films. Comparisons are being made between various communities. Many such films have been obtained from Korea and also the Navajo Reservation. These populations are being compared with the North Carolina population. The relationship to the diet will ultimately be studied in connection with the School of Public Health at Chapel Hill. A pilot study home care program for nursing and restorative services has been set up and is now ready to start functioning in Person County. This is being done in connection with the U. S. Public Health Service.

The Section Chief is a member of the Medical Advisory Committee to the Industrial Commission and he reviews all cases of silicosis and asbestosis. At present he reads all films made by the Occupational Health Section and assists in reading chest films for the Tuberculosis Control Section.

## REPORT OF THE SANITARY ENGINEERING DIVISION

July 1, 1956-June 30, 1958

The Sanitary Engineering Division is responsible for the following non-medical phases of the State Board of Health's programs of environmental sanitation including enforcement of Public Health Laws and regulations and in the promotion, development and technical supervision of these programs.

1. Public, semi-public, and private water supplies.
2. Private and institutional sewage disposal.
3. Creation of Sanitary District.
4. Sanitary engineering assistance to local health departments, municipalities and other agencies.
5. Sanitation of milk and shellfish.
6. Sanitation of public lodging and eating places.
7. Sanitation of public and private hospitals, and institutions.
8. Sanitation of meat markets, abattoirs, frozen food lockers and poultry processing plants.
9. Control of malaria and other insect-borne diseases.
10. Salt Marsh Mosquito Control.
11. Sanitary disposal of garbage and refuse.
12. Sanitation of bedding manufacturing.
13. Environmental program in radiation protection and air pollution.

In addition to the above, the Division assists in the training of local sanitarians, development of local sanitation ordinances, the preparation and distribution of technical bulletins relating to environmental sanitation, and acts as consultant to all local health departments on problems relating to sanitary engineering and sanitation.

### Administration and Legislation

The staff of forty-one (41) full-time and one part-time employees, consists of 15 engineers, 14 sanitarians, 1 entomologist, 3 bedding inspectors, and 8 secretarial workers.

During the biennium, considerable time was devoted to working with legislative committees, particularly the committee on "Reorganization of State Government", and in rewriting the public health laws which were amended as a whole for the first time since 1911. Other significant legislation adopted was the establishment of a Salt Marsh Mosquito Control program which provides for State aid to counties and towns and for the establishment of Mosquito Control Districts. Stream Sanitation was placed in the State Board of Health as a separate Division and some of the duties carried out in former years by the Sanitary Engineering Division, relating to sewage and industrial waste treatment and disposal, were transferred to the new Division of Water Pollution Control. An Interdepartmental Committee was formed to expedite the approval of plans by various State agencies. This Division is represented on that committee.

Regulations covering lodging and foodhandling places, and the sanitary disposal of sewage from residences, place of business, and place of public assembly have been prepared as required by the revised Public Health Laws. Other regulations are in the process of preparation. The usual assistance was rendered other State agencies on problems of sanitation and sanitary engineering, particularly the State Highway and Public Works Commission, the State Budget Bureau, Prison Department, Medical Care Commission, State Department of Public Welfare, and the State Department of Conservation and Development.

### Engineering Section

Emphasis has been placed during this biennium on the protection and supervision of public water supplies. Considerable improvement has been secured in water treatment and distribution facilities. Small community supplies, not previously under the supervision of the State Board of Health or the Utility Commission, have been improved and added to our list of approved public water supplies.

During the biennium, 173 sets of plans for water and sewerage improvements were reviewed and approved. Contracts let during the period April, 1957, to June, 1958 for water treatment facilities and distribution system improvements, such as extension of lines, amounted to \$3,813,880.00, and contracts for combined water and sewerage systems, including extensions to water services amounted to \$6,816,342.00. As of June 30, 1958, there were 557 public water supplies under supervision. One hundred eighty-five sets of plans for institutional type sewage treatment plants were furnished free of charge to school officials and others. Surveys were made of all watering points and watering facilities used by interstate carriers. A complete survey of all water supplies serving communities of less than 2,500 population was made and a survey report forwarded to the U. S. Public Health Service.

The program of radiation monitoring of water supply sources was begun during this biennium in cooperation with municipal water departments and the State Laboratory of Hygiene. Two training courses in measurement of low level radio-activity for water works operators, local health department personnel, and local civil defense personnel, were held at Rocky Mount and Charlotte. These courses consisted of two hours of lectures and demonstrations each week for ten weeks. A total of 90 men attended these classes. Radiation and air sampling stations were operated at Asheville, Gastonia, Charlotte, Winston-Salem, and Greensboro in cooperation with the U. S. Public Health Service and local health departments. An Air Pollution Study Project was approved by the U. S. Public Health Service and this program was started in June, 1958. We expect to secure information to enable us to appraise or evaluate the air pollution problem in North Carolina.

### Sanitation Section

The general sanitation program of the Division was improved greatly by the addition of two sanitarians authorized by the 1957 General Assembly. The shellfish and milk sanitation programs were combined for administrative purposes; and better coverage of milk and shellfish activities is being

obtained. A sanitation survey of all county fairs was made and recommendations submitted to local health directors and fair officials regarding needed improvements. Some action has already been taken, by persons responsible, to improve the sanitation of these fairs before the next fair season opens. More attention is being given migrant labor problems; one man has been assigned to work with farmers and local health directors on this problem. For the most part very unsatisfactory housing and sanitation facilities are provided for these workers.

Excellent cooperation has been secured from the State prison department in our cooperative program of prison camp sanitation and the sanitation of these camps has improved greatly during the past two years.

Special assistance was given the Cherokee Indian Reservation in helping to develop improved water supplies at the homes of the Indians. An Indian Sanitarian has been employed by the agency and we have assisted in his training and in developing their water supply protection program. We have cooperated also with the North Carolina Travel Council in conducting Travel Host Schools and in the promotion of foodhandlers' training classes. A cooperative inspection program was worked out with the officials of the Blue Ridge Parkway to provide for inspection and rating of eating and lodging places located on the Parkway.

The training of local sanitarians continued as an important phase of our sanitation program. Courses were given at N. C. State College, the University of North Carolina and at selected field training centers. Five regional training courses were given during the past two years covering the subjects of (1) School Sanitation, (2) Dishwashing Machines and Detergents, (3) Hot Water Heating Systems, (4) Radiation Hazards and Protection, (5) Public Relations. Persons interested in constructing rest homes and nursing homes are demanding more time of our personnel. We are working closely with the Welfare Department and Medical Care Commission on the review and approval of plans for these facilities.

#### Insect & Rodent Control Section

The Salt Marsh Mosquito Control Program, authorized by the 1957 General Assembly, has been placed in the Insect & Rodent Control Section for administrative purposes. During this biennium surveys were made of the Salt Marsh Mosquito breeding areas and assistance given the local communities on control operations and in promoting the development of mosquito control districts. Funds, appropriated for State aid to the counties for this work, have been allocated in accordances with the recommendations of the Salt Marsh Advisory Committee and regulations of the State Board of Health. State funds were matched by local contributions on the ratio of about 3 local to one State. Assistance was given also to communities in the handling of Civil Defense emergency mosquito control projects following the storms along the east coast.

The surveillance program for malaria control has continued, regular inspections have been made, and catch stations operated at the Kerr Reservoir and VEPCO Dams at Roanoke Rapids. Assistance has been given local communities in connection with insect and rodent control programs. Materials have been supplied, from a revolving fund, for mosquito and rodent control projects. Permits are issued for the construction of im-



poundments and these ponds are inspected under the Malaria Control Regulations. A survey of the operation of sanitary landfills was made and 58 cities are now operating such fills as a method of garbage and refuse disposal. Only five towns of over 10,000 population in the State do not presently operate sanitary landfills.

Bedding inspectors visited 6,014 manufacturing plants, inspected bedding in 12,756 retail stores and condemned 5,529 pieces of bedding during the biennium. A numerical summary of some of the more important activities of the Division is attached.

## NUMERICAL SUMMARY OF ACTIVITIES SANITARY ENGINEERING DIVISION

July 1, 1956-June 30, 1958

### ENGINEERING

Public water supply inspections . . . . .	1,145
Well sites examined and approved . . . . .	163
Water samples collected . . . . .	117
Special investigations conducted (water supplies) . . . . .	93
Sewerage system inspections . . . . .	465
Plant site investigations . . . . .	306
Special investigations (sewerage systems) . . . . .	79
Water supply plans approved . . . . .	51
Sewage works plans approved . . . . .	85
Sewage plant plans furnished . . . . .	78
Sources of water supply examined for interstate carriers . . . . .	41
Watering points examined . . . . .	97
FHA and VA developments investigated . . . . .	75
FHA subdivisions processed . . . . .	85
VA subdivisions processed . . . . .	23
Special conferences with engineers, city & county officials . . . . .	3,653

### SANITATION

Milk plant inspections . . . . .	351
Dairy farm inspections . . . . .	2,803
Milk surveys completed . . . . .	78
Milk plant plans reviewed . . . . .	8
Special investigations (milk) . . . . .	18
Conferences regarding milk . . . . .	1,212
Foodhandling establishments inspected . . . . .	3,435
School lunchrooms inspected . . . . .	442
Abattoir and meat processing plants inspected . . . . .	309
Meat market inspections . . . . .	1,072
Frozen food locker plant inspections . . . . .	73
Poultry plant inspections . . . . .	136
Plans reviewed for foodhandling establishments . . . . .	340
Foodhandler schools held . . . . .	21
Private water supply inspections . . . . .	4,282
Private sewage disposal inspections . . . . .	2,956
Privy inspections . . . . .	2,221
Summer camp inspections . . . . .	60
Institutions inspected . . . . .	972
Hospital plans reviewed . . . . .	76
Public school inspections . . . . .	316
Lodging places inspected . . . . .	314
Complaints—general sanitation . . . . .	349
Special investigations . . . . .	215
Shellfish packing plants inspected . . . . .	2,193
Retail seafood markets inspected . . . . .	304

Patrol inspections of restricted waters .....	182
Plans distributed (shellfish) .....	104
Number of court cases .....	13

*INSECT AND RODENT CONTROL*

Communities assisted in planning or supervising landfills .....	94
Applications received for permits to impound water .....	2,801
Impounding permits granted .....	2,540
Mosquito surveys made .....	959
Arthropods identified .....	153,102
Communities assisted in planning or supervising insect control .....	871
Impounded water inspections .....	1,792
Inspections of refuse storing, collection or disposal .....	303
Inspections of bedding factories .....	6,014
Inspections of retail bedding establishments .....	12,756
Pieces of bedding removed from sale and/or condemned .....	5,529

# STATE LABORATORY OF HYGIENE, RALEIGH, NORTH CAROLINA BIENNIAL REPORT

July 1, 1956-June 30, 1958

If we evaluated the work of the State Laboratory of Hygiene for the period July 1, 1956 to June 30, 1958, either by the volume of work or its quality, this period would compare favorably with the previous biennium. For 1956-1958 there were 1,005,106 laboratory examinations; for 1954-1956, 986,742; and for 1952-1954, 970,547. Larger numbers alone do not tell the whole story. Most of the laboratory examinations have been modernized and are now more complete and more exacting than the methods used in former years. Then too, new laboratory procedures in new fields of endeavor have made up a part of our accomplishments during 1956-1958. The preparation and distribution of biological products are important services which the Laboratory renders. Since its beginning fifty years ago the Laboratory has participated in numerous campaigns designed to control infectious diseases. Most of these efforts have been notably successful.

The progress made in the control of *Typhoid Fever* is reflected in the work of the Laboratory for the period 1956-1958. Only 643 specimens of blood were sent in for agglutination tests, 21 of which gave positive reactions. For the previous biennium, 950 specimens were examined with 29 positive reactions. During the 1952-1954 period we examined 5,838 such specimens. Blood cultures for typhoid fever numbered 2,575 for 1956-1958 with 9 isolations; whereas, for the previous period, 3,279 were examined with 17 isolations. The search for and study of typhoid carriers continues. In 1956-1958, 6,553 specimens were examined as compared with 6,431 specimens for the previous period. For 1956-1958 there were 581 isolations as compared with 743 for 1954-1956.

Our worries about *Undulant Fever* have decreased apparently without justification. In 1956-1958 we examined 3,829 with 79 giving positive reactions; whereas, in the previous period 5,441 specimens resulted in only 20 positive reactions.

For *Tularemia*—3,384 specimens were examined; 59 proved to be positive, as compared with 3,854 specimens with 42 positive in 1954-1956.

Specimens for the *Weil Felix Test* (*Typhus*, and *Rocky Mountain Spotted Fever*) numbered 6,144 with 22 positive reactions during the current period as compared with 7,644 and 24 reactions in 1954-1956. Complement fixation tests which differentiate these conditions indicate that during the two-year period all of these reactions were due to Rocky Mountain Spotted Fever.

Since the physicians began to look for *Leptospira Infections*, we have been finding more of them. Whether this represents an actual increase of incidence is problematical. There were 2,036 of these examinations in 1956-1958, 354 being positive as compared with 1,740 examinations and 189 positive reactions during the previous period.

Apparently just as many people have *Gonorrhea* now as had it years ago. We examined 6,852 smears with 1,169 showing evidence of the disease in 1956-1958; whereas, for the previous period 6,756 examinations indicated gonorrhea in 1,212. Current methods of treatment have decreased the demands for culture of the gonococcus. In 1956-1958 we were supplied with cultural material in 104 instances, only one of which resulted in the isolation of the gonococcus. In 1954-1956 236 attempts to culture the organism resulted in 5 isolations.

*Intestinal Parasite* work of the laboratory was almost identical for the two periods. In 1956-1958 there were 33,462 examinations made; in 1954-1956, 34,746 with 4,662 specimens showing parasites in 1956-1958 and 4,803 in 1954-1956.

Again we can report evidence of marked progress in the control of *Rabies*. We examined 1,406 animal heads in 1956-1958 as compared with 1,590 in the previous biennium. The results showed evidence of rabies decreasing from 220 in 1954-1956 to only 66 in 1956-1958. Antirabic treatments needed by persons bitten by these rabid animals amounted to 553 during the current biennium, a decrease from 728 in the previous period. When our microscopic examination of the brain is negative in animals which have bitten human beings, we make mouse inoculations, 1,048 being made in 1956-1958, 20 showing evidence of rabies, as compared with 422 in 1954-1956 with 22 showing evidence of rabies.

For *Tuberculosis* the laboratory procedures have changed somewhat. We have fewer requests for microscopic examination of specimens of sputum—32,645 in 1956-1958 with 962 showing typical organisms as compared with the previous biennium—38,844 examinations being made, resulting in the finding of 1,744 specimens with typical acid fast organisms. The modern drug treatment calls for more cultures for tuberculosis—11,154 being made in the current biennium as compared with 7,222 for the previous period. Even the larger number for the current period yielded only 178 positive cultures as compared with 250 for the previous period.

We can note with pleasure a continued improvement of our *Diphtheria* problem. Only 2,023 examinations were made during the current biennium with 2,356 for the previous period, 95 being considered positive in 1956-1958 as compared with 121 in the previous period. There was evidence of improvement in the amount of diphtheria antitoxin distributed.

*Malaria* used to be a dread disease in North Carolina. For years now it has been practically non-existent. In the past four years we have found only two specimens to contain the malaria parasite and both of those were in the period 1954-1956. In examining 221 specimens we failed to find the organism during the period 1956-1958. During the previous period 418 specimens were sent to us.

*Microbiological Analyses* in the examination of water was a new activity in the period preceding this one. There were 285 microbiological examinations. The usefulness of this work was demonstrated by the fact that during the current period we had 426 such requests.

*Sanitary Analyses* by cultural procedures were almost identical with those of the previous biennium—27,344 and 27,749.

The number of *Shellfish* examinations decreased to 10,935 from 16,715 in the previous biennium. The principal reason for this decrease is the

fact that during a considerable portion of this current period we were unable to have the services of a bacteriologist at the Shellfish Laboratory in Morehead City.

There was a decrease in the number of specimens examined by our *Water Group* and a substantial increase in the number of specimens examined for the Water Pollution Control Division. There was an increase in the number of specimens for the Industrial Hygiene Section and approximately the same amount of work done for the Division of Sanitary Engineering with a 110% increase in the work for other divisions and state institutions.

*Serology Tests* for Syphilis have through the years dealt with large numbers—648,024 examinations of blood being made during the period 1956-1958 with 45,021 of these Reactive to some degree. In 1954-1956 there were 633,885 specimens examined with 47,175 being Reactive. In the field of syphilis control we also examined 4,089 specimens of spinal fluid by means of the serologic tests and did total protein determinations on 2,640.

*Complement Fixation Tests for Virus and Rickettsial Diseases* is a relatively new service of the Laboratory but one for which the demands are growing.

*Virus Isolation and Identification* was initiated in January, 1957. In 590 specimens there were 131 isolations, including 44 for poliomyelitis; 12 for influenza; 41 for psittacosis, 30 for Coxsackie; one for encephalitis, and 3 others.

For more than ten years the State Laboratory of Hygiene has been making *cytological examinations*. During the fiscal year, July 1, 1957 to June 30, 1958, we received 19,888 specimens. Of these 8,716 originated in the Cancer Detection Clinics receiving financial support from the State Board of Health; 11,172 specimens were sent in by private practitioners. Specimens from clinic patients gave positive findings in 97 instances or 1.1%; specimens from private practitioners were positive in 124 instances—1.4%. Of the positive specimens 221 were cervical smears; 26 were specimens of sputum; 1 was from the breast; and 9 were miscellaneous.

We have been able to add two cytologists to our staff during the current year, one through appropriation by the 1957 General Assembly and one from the United States Public Health Service Chronic Disease Funds. During the current fiscal year we expect to examine some 15,000 specimens for private practitioners. We estimate that approximately 1000 of the more than 300 physicians in the State will wish to avail themselves of our services. It is our desire to render service equitably among the physicians of the State. It would seem, therefore, that a physician in private practice could expect only approximately 15 examinations per year by the State Laboratory of Hygiene. We are suggesting to these practitioners that they restrict the specimens they send to us to those patients who are financially unable to pay a fee for cytological work.

We have specimen containers available for which we charge 20¢ each. No charge is made for our examination. There are more than 1,200,000 women in North Carolina who should have cytological examinations. Probably not more than 150,000 cytological examinations are made in the State each



year. It is apparent, therefore, that greatly increased facilities are needed in North Carolina for cytological work.

*Biological Products*, their preparation, purchase and distribution have been an important activity of the State Laboratory of Hygiene in its efforts to aid in the fight of infectious disease. Of the various biological products distributed, *Triple Antigen or Diphtheria, Tetanus and Pertussis*, from the standpoint of the number of people benefited together with its monetary value, heads the list. In 1956-1958 an amount sufficient to provide 359,380 injections was only slightly larger than 358,020 injections for 1954-1956.

There is a substantial reduction in the demand for *Diphtheria Toxoid* and *Pertussis Vaccine*, both as individual and combined antigens.

There is an increase in the demand for *Tetanus Toxoid* primarily for booster doses, 57,400 as compared with 51,910 for the 1954-1956 period and 34,200 in 1952-1954.

In our last report we noted a slight reduction in the demand for *Small-pox Vaccine*. Although the amount distributed in 1956-58 was larger than that in 1954-1956, it was not quite equal to that in 1952-1954. The amount of this product distributed should give us reasonable assurance that we will not have an epidemic of smallpox.

*Typhoid Vaccine* distributed consisted of 11,494—10cc Vials and 4,318—50 cc. Vials.

During the current biennium we have been embarrassed by the shortage of *Gamma Globulin*, our only source being the American National Red Cross, which they supplied us without charge. During the biennium we distributed 28,054 cc. We could have distributed many times this amount. The great demand for it and the short supply resulted in the North Carolina State Board of Health adopting a Board Policy of limiting the use of this product to the control of Infectious Hepatitis and Measles in children.

For *Poliomyelitis Vaccine* the Laboratory has served as a distributing depot for vaccine purchased with Federal Funds, administered by the Division of Epidemiology. During the biennium we distributed 270,886—9cc vials.

Our *financial statements* seem to need little explanation. Comparison with the previous biennium is not always possible due to consolidation of some budget items during the current biennium.

Out total expenditures during the period 1956-1958 were approximately \$110,000 greater than in the previous biennium. A considerable part of this was due to the cost-of-living salary increases granted by the General Assembly for members of our staff.

Our worries during the biennium have been mainly financial. It has been almost impossible to purchase enough supplies to operate the laboratory with the funds made available for the purchase of supplies. Previously we have reported difficulty in securing well-trained workers. This difficulty has been partially relieved during the current biennium.

We have endeavored to keep our laboratory procedures up to a high standard of performance. The spirit of our staff has been excellent. They have endeavored to render every possible service in order that the institution may better serve the people of the State.

# STATE LABORATORY OF HYGIENE, RALEIGH NORTH CAROLINA— REPORT OF EXAMINATIONS MADE

	July 1, 1956-June 30, 1958			July 1, 1954 June 30, 1956
	Positive	Negative	Unsatisfactory	Total
<b>AGGLUTINATION TESTS:</b>				
TYPHOID AND PARA TYPHOID	21	622		643
UDULANT FEVER	79	3,750		3,829
TULAREMIA	59	3,325		3,384
WEIL FELIX, TYPHUS & ROCKY MOUNTAIN SPOTTED FEVER	22	6,152		6,174
HETEROPHILE ANTIBODY	304	3,638		3,942
LEPTOSPIRAL	354	1,682		2,036
OTHER SPECIMENS	771	412		1,183
BLOOD CULTURE (SALMONELLA)	9	2,446	164	164
FECES AND URINE CULTURES	581	5,954	120	2,575
GENERAL BLOOD CULTURE	1	849	18	6,553
CULTURES FOR GONOCOCCUS	1	96	7	850
GONOCOCCI (Microscopic)	1,169	5,635	48	104
INTESTINAL PARASITES	4,662	28,545	255	6,852
RABIES (animal brains)	66	1,318	22	33,462
ANIMAL INOCULATIONS:				1,406
Mouse Test for Rabies	20	1,028		422
Guinea Pig Test for TB	25	317		342
TUBERCULOSIS ACID FAST STAINS (Microscopic)	962	30,760	923	32,645
TUBERCULOSIS CULTURES (Sputum)	178	10,733	243	11,154
DIPHTHERIA CULTURES	95	1,924	4	2,023
VINCENT'S ANGINA (Microscopic)	193	507		700
MALARIA (Microscopic)	0	200	21	221
DARKFIELD (Microscopic)	0	12	2	14
MICRO-BIOLOGICAL ANALYSES (Microscopic)				426
SANITARY ANALYSES (Cultures)	4,911	20,928	1,505	27,344
SHELLFISH ANALYSES (Cultures)				10,935
Water Group		56,963		
CHEMISTRY:		14,210		
Stream Sanitation		296		
Industrial Hygiene		240		
San. Engineering		38		
Misc. (Dust)		887		72,634
SEROLOGICAL TESTS FOR SYPHILIS				73,634
TOTAL NUMBER OF TESTS				699,774
Qualitative Blood	648,024			688,436
Quantitative Blood	4,021			
Spinal Fluid VDRL	4,089			
Total Protein	2,640			
<b>COMPLEMENT FIXATION</b>				
<i>Rickettsia</i>				357
Rocky Mt. Spotted Fever				274
Typhoid (Murine) Human				199
Rickettsial Pox				64
Q Fever				46
<i>Viruses</i>				
Eastern Equine Encephalomyelitis				445
Western Equine Encephalomyelitis				443
St. Louis Encephalitis				381
Japanese B. Encephalitis				0
Lymphocytic Choriomeningitis				415
Mumps				521
Psittacosis				742
Influenza (P R 8)				133
Influenza (F. M. 1)				141
Influenza (Lee)				142
Lymphogranuloma Venereum				144
Virus Isolations				590
<b>MISCELLANEOUS EXAMINATIONS:</b>				
Cultures	10,175			
Cancer Cytology	38,168			
Microscopic	2,304			
Other	17,279			
				67,926
<b>TOTAL</b>				1,005,106
				986,742

STATE LABORATORY OF HYGIENE, RALEIGH NORTH CAROLINA—  
REPORT OF BIOLOGICALS DISTRIBUTED

	July 1, 1956-June 30, 1958	July 1, 1954-June 30, 1956
Diphtheria Toxoid (Alum Precipitated)		
Injections	2,932	8,091
Diphtheria Toxoid (Ramon)		
Injections	690	600
Combined Diphtheria Toxoid and Pertussis Vaccine		
Injections	3,610	6,000
Tetanus Toxoid		
Injections	57,400	51,910
Combined Diphtheria-Tetanus Toxoid		
Injections	16,820	23,250
Triple Antigen		
Injections	359,388	358,020
Schick Tests for Diphtheria		
Tests	15,770	17,900
Schick Control for Diphtheria		
Tests	4,520	3,750
Smallpox Vaccine		
Individual Tests	324,876	318,606
Typhoid Vaccine		
10cc Vials	11,494	10,895
50cc Vials	4,318	5,136
100cc Vials	1	422
Rabies Treatments	523	728
Pertussis Vaccine		
Treatments	471	1,250
Autogenous Vaccine	60	28
Diphtheria Antitoxin		
10,000 Unit Packages	232	581
20,000 Unit Packages	604	948
Tetanus Antitoxin		
1,500 Unit Package	5,971	7,491
20,000 Unit Package	258	209
Dick Test for Scarlet Fever	1,365	680
Neorsphenamine & Sulpharsphenamine		
0.6 Gram Ampules	0	0
Sheep Cells	1,080	
The Following Furnished to the Laboratory by The American Red Cross and Distributed Free of Charge		
Immune Globulin—No. cc.	28,054	137,072
U.S.P.H.S. Funds through Division of Epidemiology		
Salk - Poliomyelitis Vaccine CC.	270,886	802,539
Influenza Virus Vaccine—Monovalent		
Type Asian Strain —10cc	586	

# STATE LABORATORY OF HYGIENE RECEIPTS

	<u>July 1, 1956-June 30, 1955</u>	<u>July 1, 1954-June 30, 1956</u>
<b>BIOLOGICALS AND PRODUCTS</b>		
TOXOID .....	\$ 21,068.09	\$ 23,647.01
PERTUSSIS VACCINE .....	299.65	701.30
AUTOGENOUS VACCINE .....	285.00	130.00
SILVER NITRATE .....	3,491.00	4,212.00
ANTIRABIC TREATMENTS .....	2,401.02	3,478.22
DIPHTHERIA ANTITOXIN .....	316.50	611.40
TETANUS ANTITOXIN .....	3,634.74	4,394.65
DICK TEST .....	82.50	71.70
INFLUENZA VACCINE (ASIAN STRAIN) .....	2,328.20	
Standard Solutions (Media & Reagents) .....	5,000.00	
TOTAL .....	\$ 38,906.70	\$ 37,246.28
WATER TAX .....	50,083.25	41,371.25
SPECIMEN OUTFITS .....	27,718.81	29,727.99
SPECIAL FEES .....	969.20	696.00
MISCELLANEOUS .....	458.82	769.30
ANIMALS .....	1,188.30	1,044.35
WOOL .....	84.09	253.52
TIMBER .....		136.50
PULP WOOD .....		901.49
FORD SEDAN .....	221.01	
PANEL BODY TRUCK .....	301.98	
U.S.P.H.S. INF. DIAG. CONTRACT .....	4,500.00	
TOTAL .....	\$124,432.16	\$112,146.68
REFUNDS .....	96.91	
NET TOTAL .....	\$124,335.25	
<b>FINANCIAL STATEMENT</b>		
TOTAL EXPENDITURES .....	632,622.21	522,144.61
TOTAL RECEIPTS .....	124,335.25	112,146.68
APPROPRIATION .....	\$508,286.96	\$409,997.93

# STATE LABORATORY OF HYGIENE DISBURSEMENTS

	<u>July 1, 1956-June 30, 1955</u>	<u>July 1, 1954-June 30, 1956</u>
SALARIES AND WAGES .....	\$471,535.07	\$377,639.22
SUPPLIES AND MATERIALS .....	89,201.81	74,025.48
POSTAGE, TELEPHONE AND TELEGRAMS .....	19,634.10	19,760.28
TRAVEL EXPENSE .....	2,027.90	1,848.83
PRINTING AND BINDING .....		3,761.52
MOTOR VEHICLE OPERATION .....		1,933.60
LIGHT, POWER AND WATER .....		6,964.26
REPAIR & ALTERATIONS .....	5,367.50	5,302.46
GENERAL EXPENSE .....	16,117.26	149.76
INSURANCE AND BONDING .....		15.79
EQUIPMENT .....	10,515.69	1,851.79
ELEVATOR MAINTENANCE .....		1,486.62
DEBT SERVICE .....	12,540.00	24,610.00
WATER ANALYSIS SPECIAL .....		2,750.00
WORKMEN'S COMPENSATION .....	182.88	45.00
COOPERATION UNITED STATES GEOLOGICAL SURVEY .....	5,500.00	
TOTAL .....	632,622.21	522,144.61

## REPORT COMMITTEE ON POSTMORTEM MEDICOLEGAL EXAMINATIONS

### JUNE 1956-JUNE 1958

A Committee on Postmortem Medicolegal Examinations in the State Board of Health was authorized by Chapter 972, Public Laws of North Carolina, 1955, to become effective January 1, 1956. This Committee was activated, with the following membership: Dr. J. W. R. Norton, Chairman; Dr. K. M. Brinkhous, Chapel Hill, Secretary; Dr. W. D. Forbus, Durham; Dr. Smith Foushee, Winston-Salem; Mr. Holt McPherson, High Point; Mr. Harvey W. Marcus, Attorney-General's Office, Raleigh; and Mr. J. W. Powell, State Bureau of Investigation, Raleigh. Mr. Robert E. Cooper succeeded Mr. Marcus on the Committee in late 1956, Mr. T. S. Harrington succeeded Mr. Cooper in July 1957, and Mr. Charles D. Barham succeeded Mr. Harrington in March 1958. Mr. Powell, State Bureau of Investigation was succeeded by Mr. Walter Anderson in July 1957. Dr. John H. Hamilton, Assistant State Health Officer has served as a consultant to the Committee since its first meeting in December 1955. Dr. William Forrest, Assistant Professor of Pathology, U.N.C. Medical School, has served as a consultant since August 1956.

The Committee is charged with administration of a new Medical Examiner System which individual counties of the State may join by resolution of the Board of County Commissioners. The Committee has set up the outlines for the operation of this new System. An article entitled "The New Medical Examiner Act of North Carolina," by Dr. Brinkhous, appeared in the June 1956 issue of the North Carolina Medical Journal.

Provisions have been made for appointment of County Medical Examiners in counties under the System. The County Medical Examiner is a qualified physician, recommended by the County Board of Commissioners and the Committee, and appointed by the Chairman of the Committee. Provisions also have been made for the establishment of Districts and the appointment of District Pathologists. The North Carolina State Pathology Society has aided the Committee in arranging for Pathology services for the Committee.

An essential part of the operation of the new System is to provision for toxicological analyses on postmortem material. A State Toxicology Laboratory, under the direction of Dr. Forrest, has been established at the University of North Carolina to perform analyses, free of charge, for those counties in the System. It is hoped that the free toxicology services will persuade more counties to join the System inasmuch as toxicological analyses by private toxicologists are quite expensive. Prior to the establishment of the toxicology laboratory, toxicological analyses were performed for the counties in the System by Dr. Haywood Taylor, at Duke University, on a fee for service basis.

A handbook to serve as a guide to County Medical Examiners and District Pathologists was prepared for the Committee by Dr. Forrest and was printed and distributed by the State Board of Health in March 1957.



The Committee has been active in disseminating information regarding this new System, and has been aided in this regard by a Committee of the State Medical Society under the direction of Dr. John H. Hamilton. This latter committee sponsored a talk by Dr. Richard Ford, Professor of Legal Medicine, Harvard Medical School, on the activities of medical examiners before the annual meeting of County Commissioners in Winston-Salem in August 1956. There is a great need for educating the general public regarding the inadequacies of the Coroner System and the advantages of the Medical Examiner System.

To date, four counties have joined the System. These counties are Union, Wilkes, Cumberland and Guilford. Unfortunately, for varying reasons, three of the counties have withdrawn from the System. A physician served as both County Coroner and Medical Examiner in Union County. When a filling station operator ran against him for Coroner and won, the Commissioners decided that they did not want the doctor as Medical Examiner either. The Medical Examiner of Wilkes County died following a fall and has not been replaced; Wilkes County reverted to the Coroner System. Cumberland County had a Medical Examiner for a year but a bitter political fight doomed the experiment there. Guilford is currently the only county with a Medical Examiner. According to Mr. Holt McPherson of High Point, the System is working most satisfactorily and has cleaned up an unwholesome situation in Guilford County. It is hoped that the experience of Guilford County will encourage other counties to adopt the Medical Examiner System.

On March 11, 1958 the Committee met jointly at the Institute of Government with the Executive Committee of the Police Executives Association of the State of North Carolina. There followed a presentation of the history of the Medical Examiner System, how it operated at the county and state levels and the relationships which would exist with law enforcement officers. The need for wider adoption of the System was stressed. The general feeling was expressed that this meeting was very worthwhile to both groups. Mr. Anderson has indicated the willingness of the State Bureau of Investigation to participate in the development of the new System and Mr. Albert Coates has offered to provide a short course for Medical Examiners at the Institute of Government.

A recent series of four articles on the outmoded Coroner System appeared in the News and Observer; Sept. 1—Sept. 3, 1958. These articles were written by Mr. Robert L. Brooks and dealt with information obtained from Dr. Wiley Forbus of Duke University. Apparently these articles have had some effect for on September 5, 1958 an article in the News and Observer declared that a Craven County Grand Jury had served notice in writing that it wants no part of murder charges against anyone unless a medical expert has examined the body of the alleged victim and determined what brought about his or her demise. It is time that the rest of North Carolina embraced medico-legal examinations for the protection of the innocent as well as the apprehension of the guilty.

## BIENNIAL REPORT

### THE DIVISION OF ORAL HYGIENE

July 1, 1956-June 30, 1958

The second year of the biennium was an especially good one for the Division of Oral Hygiene. An increase in State funds, granted by the 1957 General Assembly, enabled us to add to our staff of public health dentists, thereby, making services available to more counties and to a greater number of children in each of the counties receiving the service.

The objective of the Dental Health Program is to improve the dental health conditions of the people of North Carolina—to reduce the incidence of dental disorders and systemic diseases of dental origin. Tooth decay is still our number one physical defect. At least 85 percent of the people are in need of dental attention, and over 50 percent of North Carolina children have never been in a dental office.

Dental and Public Health authorities agree that *prevention* offers the most effective and economical approach to the problem. Many people who should know better are still laboring under the false impression that Public Health Dentistry is primarily concerned with dental corrections for the individual. Public Health Dentistry, like other branches of Public Health, is interested in the prevention of disease and the maintenance of good general health.

We believe that the prevention of dental disorders is to be accomplished through education. PREVENTION THROUGH EDUCATION AND THE EARLY DETECTION AND CORRECTION OF DENTAL DEFECTS has been our guiding principle through the years. For the preventive measures to be most effective they must be applied early in life. Therefore, the emphasis must be on providing an effective program of dental health education for the children in the elementary schools of the State.

The program of the Division of Oral Hygiene, insofar as funds and staff will permit, includes the following services:

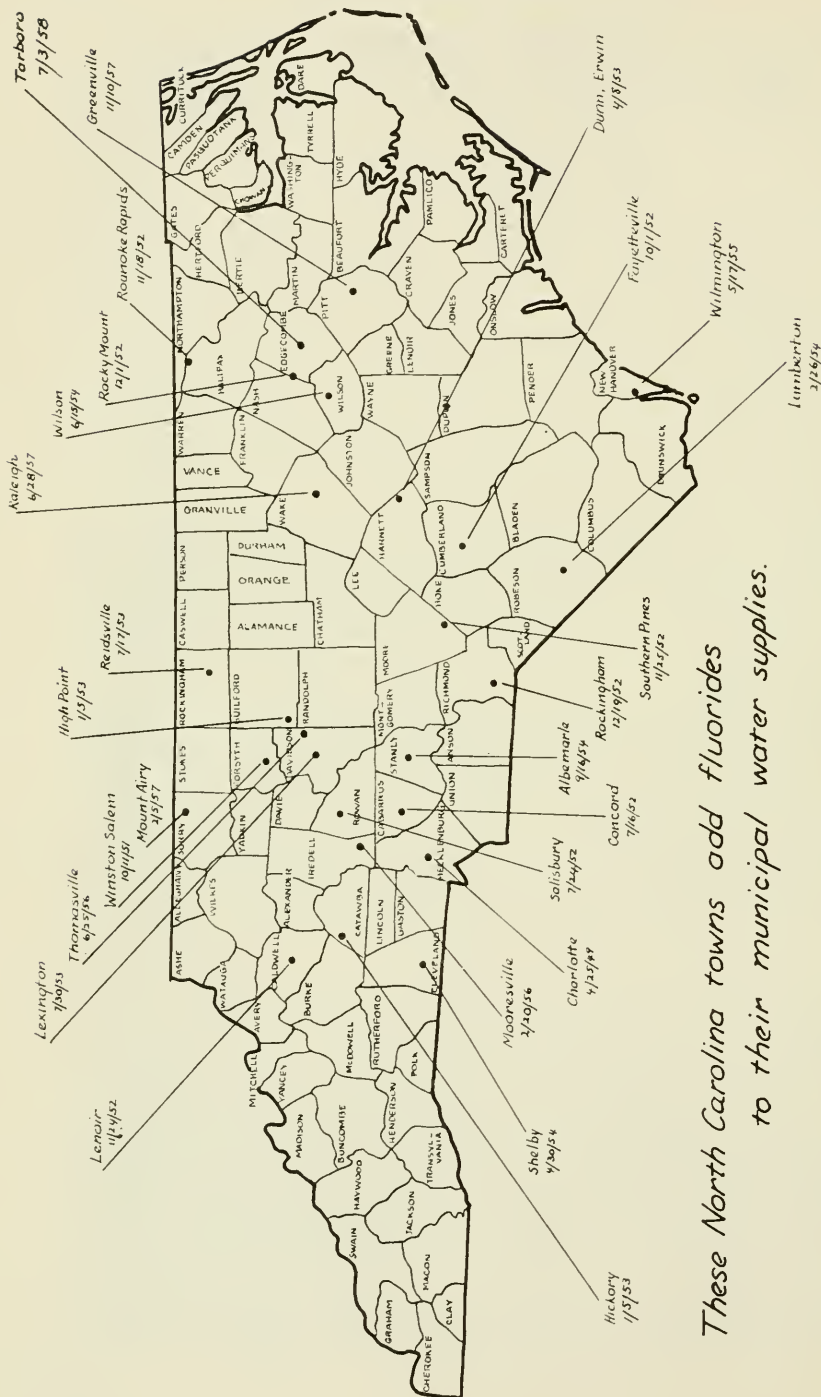
Classroom instruction and dental inspections for all children.

Dental corrections for the underprivileged children.

Referrals to their own dentists for the children whose parents are financially able to take care of their dental needs.

These services are rendered by a staff of school dentists assigned to the local health departments on a fund matching basis. Supporting services are: the presentation of a dental health puppet show which covers the State once every two years; the preparation and distribution of dental health education materials; and the promotion of wide-scale preventive procedures, notably, the fluoridation of municipal water supplies.

The following statistical summary shows the amounts and sources of funds expended, as well as the services rendered in the schools for each year of the biennium, July 1, 1956 through June 30, 1958. An interpretation of some of the services follows the statistical report.



*These North Carolina towns add fluorides to their municipal water supplies.*

August 15, 1958

## BUDGET AND PERFORMANCE STATISTICS

	1956-1957	1957-1958
<i>Sources of Funds Expended</i>		
General Fund	69 776.52	124 139.60
Special Dental Fund (Departmental)	94 201.05	60 422.10
Federal—Maternal and Child Health		22 410.59
<i>Services</i>		
Average Number of School Dentists	12	16
Number Counties Receiving Service	55	59
Number of Schools Visited	535	650
Number Children—Mouths Inspected	91 137	109 678
Number Underprivileged Children Receiving Dental Corrections	31 915	39 725
Number Children Referred to Their Own Dentists	42 648	50 538
Classroom Lectures by Dentists	2 662	3 345
Total Attendance at Lectures	90 905	115 186
Total Attendance at Puppet Show	152 311	143 650

It will be noted that the amount expended from the Special Dental Fund was greater during the first year of the biennium. This is to be accounted for by the use of a balance which had been carried over in this fund. The balance has now been depleted. The amount expended in 1957-1958 represents current payments by the counties for their share of the expense of the program. To compensate for the depletion of the balance in the Special Dental Fund, a restoration of the Division's participation in Federal Funds was made. The increase in State Funds, as has been stated, provided for the employment of additional dentists on the staff.

Funds were available for the employment of 15 dentists in 1956-1957 and 20 dentists in 1957-1958. That the recruitment of dentists is a very real problem is reflected in the fact that in neither year were all positions filled. For only a short period in 1957-1958 were all of the budgeted positions filled. However, in view of the fact that one dentist was on educational leave and two were on military leave, the quota was very nearly reached. At the close of the school year several vacancies occurred. The prospects are good for filling these vacancies and for adding the four additional dentists provided for in the 1958-1959 budget.

If we are successful in bringing the staff up to full strength we will be able to furnish the service to a greater number of counties. Dentists worked in 55 counties in 1956-1957 and in 59 counties in 1957-1958. Only six of our 100 counties have full-time dentists on the staffs of the local health departments. This leaves 94 counties to which our services should be available. In considering the figures on the report it should be kept in mind that the children in the counties not visited need and should receive the benefits of the program.

Though conscious of the limitations of the program, we believe that gratifying progress is being made in the matter of dental care for our children. Of course, the children who should be patients of the private practitioners constitute the majority. More and more of these children

are finding their way to dental offices. Thousands are referred each year by the school dentists on our staff. An equally large number are influenced by educational activities, such as, the Little Jack puppet show.

The number of underprivileged children receiving dental corrections speaks for itself in terms of the relief of suffering and improved dental and general health for children who, otherwise, would not have had the service. Dental corrections for those in this age group are not only control techniques, but also preventive measures in that they reduce the incidence of such sequelae as oral and systemic infection.

The corrective work also represents in each of the schools visited a demonstration of the benefits of early dental care. This demonstrative teaching is not limited to the recipients who, in many cases, will be led to seek needed dental service throughout life. Equally important is its influence on the other children who become accustomed to seeing children go to a dental office without fear and emerge therefrom with no signs of having had unpleasant experiences. The dentists, with special aptitudes and experience in working for children, endeavor to make each child's visit a satisfactory dental experience. This takes time, but it is our considered opinion that it is time well spent in establishing favorable attitudes toward dentists and their services among the recipients and, also among their friends and classmates.

We hold firmly to the conviction that dental care programs for children, which programs are concerned only with correcting existing dental defects, fall far short of the possibilities. The educational opportunities inherent in the situation must be used to the end that the children worked for will acquire knowledge and attitudes which will lead them to value the services of a dentist and to assume responsibility for their own dental health as soon as they are able to do so.

While the major emphasis of the Oral Hygiene Program is on the prevention of dental ills through educational and corrective services for children, we look forward to the day when there will be a great reduction in the incidence of tooth decay by the fluoridation of municipal water supplies. The Oral Hygiene Division has been glad to assist dental societies, local health departments, and civic clubs in many communities in their promotion of fluoridation by supplying them with information, exhibits, and materials for distribution. At present, children in twenty-six North Carolina communities are drinking fluoridated water. By this we mean that in these communities the fluoride content of the water has been adjusted to the recommended level of one part per million. There are an equal number of water supplies in our State with naturally occurring fluoride in the amounts of .7 ppm to 3.6 ppm. The State Board of Health heartily endorses the fluoridation of municipal water supplies as an effective and safe public health measure for the prevention of dental decay.



## REPORT OF ACTIVITIES

# DIVISION OF WATER POLLUTION CONTROL

July 1, 1956-June 30, 1958

E. C. HUBBARD, *Director*

### Historical

The history of stream pollution and efforts to control it in North Carolina follow very closely the experience of other states and the country as a whole. As urban communities developed, water-borne diseases increased and in some sections to an alarming extent. Public concern with stream pollution was, therefore, first manifested primarily from the standpoint of protecting public water supply sources and the prevention of public health nuisances. In view of this, it is not unusual to find, upon examination of the records, that the first laws of the State, enacted by the General Assembly in 1893, established legal requirements relating to the protection of public water supplies. These Statutes, administered by the North Carolina State Board of Health, were subsequently amended and strengthened in 1899, 1903, 1907, and 1911 with respect to the protection of public water supply sources; however, little or no authority was provided for the protection of other streams and their uses, particularly with respect to the rapidly growing industrial waste discharges.

Much progress was made during this period in the control of the public health aspects of stream pollution resulting from human waste discharges. On the other hand, the rapid growth experienced by municipalities and the State's progress in industrialization with the accompanying increase in waste materials reaching the streams focused attention upon the need for a comprehensive program under which all of the various water uses would be protected. Consequently, in 1926 a cooperative study project was agreed upon between the State Board of Health and the State Department of Conservation and Development. This project was carried on under the direction of an unofficial joint committee known as the "State Stream Sanitation and Conservation Committee" until 1931 when it was abandoned because of the lack of available funds during the depression.

Following the above mentioned cooperative studies, little was done until 1937 when the State Planning Board, recognizing the need for an effective pollution control program, recommended the enactment of suitable legislation. A bill was introduced in the 1937 General Assembly but failed to pass, thus the matter lay dormant until 1945 when legislation established the first official study group known as the "State Stream Sanitation and Conservation Committee". This group was authorized to conduct studies of the pollution problem but was not provided funds for the work. Nevertheless, by using lapsed funds in the State Board of Health budget technical assistance was obtained from North Carolina State College and a report, "The Extent of Stream Pollution in North Carolina", was presented to the 1947 General Assembly, with a request for funds to continue the studies needed in determining the type of legislation, if any, that would

be necessary to cope with the stream sanitation problem. This request was honored and approximately \$20,000 became available July 1, 1947, for the continuation of the studies.

The studies conducted during the period 1945-49 revealed specific needs for effective legislation; therefore, a bill similar to the 1937 bill was introduced in the 1949 General Assembly. This bill failed; however, another bill, introduced in 1951, passed after being rewritten in Committee. This Act, Chapter 606, Session Laws of 1951, amending Article 21 of Chapter 143 of the General Statutes, created within the State Board of Health a permanent committee, comprised of eight members, to be known as the "State Stream Sanitation Committee". The Act set forth the duties of the Committee and authorized the development and administration of a comprehensive stream sanitation program based upon the classification of all waters according to the present or potential future "best usage". The Statute remained substantially unchanged until 1957, at which time amendments were enacted increasing the membership of the Committee to include an additional member representing agriculture and making the State Board of Health the administrative agent of the Committee. The amendments became effective July 1, 1957, and since that time the Division of Water Pollution Control has been established by the State Board of Health to handle the work of the Committee under the Stream Sanitation Law and to perform the duties assigned by the State Board of Health in connection with the administration of the requirements of the Public Health Law relating to the collection and disposal of municipal sewage and industrial wastes. The Committee was retained as the official State agency responsible for establishing policies relating to stream sanitation, holding public hearings, assigning classifications, and issuing pollution abatement orders. This change in the statute was made upon recommendations presented by the Commission on Reorganization of State Government in order to eliminate duplication of efforts in the water pollution control programs of the State and to make possible the better coordination of the work.

### Organization

The personnel is made up of employees assigned to the State Stream Sanitation Committee prior to the establishment of the Division of Water Pollution Control by the State Board of Health. The staff consists of a total of 33 permanent full-time employees plus 7 part-time summer workers. In addition to the director, there are 8 sanitary engineers, 15 chemists, 6 secretaries, 1 clerk, 1 draftsman, 1 permanent full-time and 7 part-time sample collectors. There are two sections in the Division—the Stream Study Section and the Pollution Control Section. The annual budget for the Division is \$257,074 which includes Federal grant funds in the amount of \$83,657.

The laboratory work of the Division in past years was performed in four mobile laboratory units, operated by the staff, and in the State Laboratory of Hygiene. Two of the mobile units were owned by the Division while the other two were loaned to the State by the U. S. Public Health Service on a year-to-year basis. One of these, used by the Industrial Waste Study Group, was recalled on June 26, 1958; therefore,

arrangements have been made to provide stationary laboratory facilities for this group on the second floor of the State Laboratory of Hygiene farm building. The work required to complete and equip this space is now underway.

Stream flow data for use in determining the concentration of existing pollution and in evaluating the capacity of streams to assimilate waste loads are obtained through a cooperative stream gaging program with the U. S. Geological Survey. The annual cost of this program is \$25,000 which is shared equally by the State and Federal Governments. A Chemist IV is assigned to this program to coordinate the work with that of the Stream Study Section.

### Administration

The Division has made every effort possible, within the limits of available funds and personnel, to carry out an effective stream study and pollution control program. The underlying principles of the program are (1) the establishment of dependable basic data relative to present water uses and water quality as a sound basis upon which stream classifications and pollution abatement needs may be determined, (2) rendering technical guidance and supervision in connection with the design, construction, and operation of waste treatment facilities, and (3) acquainting the public with the need for and importance of an adequate and effective water quality control program.

The staff has, accordingly, worked with the various governmental agencies, industries, and individuals concerned with the stream sanitation and water resource management program. Conferences, meetings and public hearings have been attended at which available information concerning water pollution control problems was supplied. The Division has also worked with existing municipalities and industries in an effort to encourage them to initiate pollution abatement projects and has, through a special industrial waste study group, worked with new and prospective industries in evaluating pollution abatement needs at various plant sites being considered. This activity requires considerable time; however, it is an important service to industries considering locating plants in North Carolina and accomplishes the important objective of preventing pollution which would later have to be corrected at greater expense in terms of money and time.

The personnel have also delivered many talks relative to stream sanitation and water control before technical organizations, civic clubs, and other similar groups during the period covered by this report. Likewise, many copies of educational material such as progress reports, the "Tar Heel Waters" bulletin, and "The Fight to Save North Carolina's Waters" have been distributed for use in our public schools and by the Garden Clubs, the Womans Clubs, the League of Women Voters and to various other civic and professional groups. This activity has served to awaken public interest in and secure support for the stream sanitation program.

### Stream Study and Classification Activities

Comprehensive studies and investigations relating to pollution loads, stream characteristics, and present and future contemplated best uses of

the waters in each major river basin must be made in order to determine the appropriate classification or classifications to be assigned in the best interest of the public. Upon completion of such studies, detail pollution survey reports are issued and public hearings are held prior to classifying the waters of the basin.

These studies together with special plant studies to determine the magnitude and characteristics of major significant sources of pollution are conducted by the personnel assigned to the Stream Study Section. This group consists of a section chief, a chief chemist and his assistant plus 1 engineer, 1 draftsman, 1 general clerk, 9 chemists, 1 permanent sample collector, and 5 summertime employees who are used as sample collectors. Three mobile laboratories are used in the stream study program and these are moved from time to time as studies are completed.

During the past two years comprehensive pollution studies were completed in four major river basins (Cape Fear, Neuse, Catawba, and Pasquotank) comprising 36% of the area of the State. During the same period, three public hearings were held relative to suggested classifications and the waters of two major river basins (Roanoke and French Broad) were officially classified by the State Stream Sanitation Committee. The status of stream studies and classification activities in the State is given in Table I while Table II lists the various special plant studies conducted during the biennium.

To summarize the progress in stream study and classification activities, Table I indicates that during the past six and one-half years studies have been completed in nine major river basins comprising 75% of the total area of the State, classifications have been assigned to the waters of five major river basins representing 40% of the State while comprehensive surveys are now underway in two additional basins (Tar-Pamlico and Little Tennessee) comprising an area equal to 12% of the State. When these are completed only five small river basins representing 12.5% of the State will remain to be studied. It is anticipated that all of the State's waters will be studied and classified by 1962 or 1963.

### Stream Pollution Abatement and Control Activities

The pollution abatement activities are carried out by the Pollution Control Section under the direction of a Section Chief. The technical personnel of the Section consists of 5 sanitary engineers in addition to the section chief plus a Special Industrial Waste Study Group comprised of a chief chemist, 2 assistant chemists and 2 temporary employees who serve as sample collectors during the summer months.

The Stream Sanitation Law recognizes that, due to the economics involved and the time required to plan and execute pollution abatement projects, the program must be established as a cooperative endeavor with long-range objectives. It, accordingly, provides for the encouragement of voluntary action and authorizes the issuance of "Certificates of Approval" covering such projects even though the receiving waters are not classified. It, likewise, provides for the issuance of "Temporary Permits" covering the continued discharge of sewage and industrial wastes through existing outlets in cases where the owners of such sources of pollution have de-



finite and acceptable programs for providing corrective measures within a reasonable period of time.

During the past two years the engineers of the Division have taken maximum advantage of every opportunity to promote voluntary pollution abatement projects. They have continued working with municipal and industrial officials and their consulting engineers in determining the most feasible and satisfactory waste treatment methods to be employed. Operators of both municipal and industrial waste treatment facilities were assisted with operational problems and assistance has been freely given in connection with the planning and conduct of short schools for sewage and industrial waste treatment plant operators.

The program of Federal Grants for the construction of municipal sewage treatment works, authorized by P. L. 660, 84th Congress, has served to stimulate the planning and construction of sewage treatment plants during the biennium. Funds allocated to North Carolina for grants to eligible projects during fiscal year 1956-57 and 1957-58 totaled \$1,270,645 each year. During 1956-57, Federal grants totaling \$1,249,388 were approved for 12 projects having an estimated cost of \$6,395,182 while in 1957-58, 13 municipalities received grants totaling \$1,277,152 for the construction of projects costing \$5,263,252. Likewise, applications for grants in the amount of \$1,349,294 from the 1958-59 allotment have been processed for 9 projects estimated to cost \$5,708,526 while there are 23 applications pending which represent requests for \$2,281,546 on projects having estimated costs totaling \$15,400,019. Grants to the latter group could not be awarded because of the limited grant funds available for use in North Carolina.

The personnel have also cooperated with the various State, Federal and private agencies comprising the Steering Committee for Roanoke River Studies. This group was organized in 1955 for the purpose of conducting joint studies of the flow regulation and pollution problems in the river below existing hydroelectric projects. This work will provide the bases for recommendations concerning required minimum flow releases at upstream hydroelectric projects and necessary pollution abatement measures at existing points of sewage and waste discharges. Comprehensive data of the type being collected by the Steering Committee could not have been obtained except through cooperative studies of the type being made.

During the biennium 173 sets of plans, specifications, and reports covering sewage and waste collection and treatment projects were received and reviewed, resulting in the issuance of 46 Certificates of Approval, 9 Permits, 14 Temporary Permits, 6 Tax Certificates, and approval of 33 sewage and waste treatment plant sites. Table III lists the various projects approved during the period and gives information concerning the cost and type of projects involved.

A Special Industrial Waste Study Group, established in the Pollution Control Section, conducts special studies and works with the Division of Commerce and Industry of the State Department of Conservation and Development in connection with the State's industrialization program. This group is responsible for (1) the evaluation of water supply and waste disposal problems at proposed industrial plant sites, (2) special



studies to determine the degree of treatment to be required of municipalities and existing industries, (3) studying ways of treating complex industrial wastes, and (4) training industrial and municipal treatment plant operators how to make laboratory determinations essential to proper operation of waste treatment works.

During the year since this group was established, 15 proposed industrial plant sites were evaluated with reference to the degree of waste treatment required to protect the receiving stream. The industries concerned included pulp and paper, textile, metal plating, and food processing. Also, 7 special stream studies were conducted to determine the effect of waste discharges on the stream and the degree of treatment required to prevent contravention of assigned stream standards. Samples were analyzed from 7 industries and 1 municipality to determine the efficiency of existing treatment facilities.

The group was assigned to participate in a special joint study on the Roanoke River to determine the effect of a submerged weir in the Roanoke Rapids Reservoir upon downstream water quality. Some 5,000 samples were collected and analyzed during the study.

In conducting the work of the group, 2,875 samples were collected on which 6,202 analytical determinations were made. The work of this group is proving quite beneficial in relation to the pollution abatement and control activities of the Division.

#### State Stream Sanitation Committee Activities

The Committee, as the policy making body for the stream sanitation program, held 9 regular and 3 special meetings during the biennium. Three formal public hearings relating to suggested stream classifications were held in the Roanoke and French Broad River Basins and classifications were assigned to the waters of both. The Committee also conducted 3 informal hearings at which time polluters were invited to appear before the Committee and present reasons why required pollution abatement action was not being taken. During the course of the 12 Committee meetings the following actions were taken:

Pollution Survey Reports Approved	2
River Basins Classified	2
Comprehensive Pollution Abatement Plans Adopted	1
Rules of Procedure Adopted	2
Documents of Approval Issued by Staff Confirmed	76

The extent of inspection and other activities engaged in by the personnel of the Division is indicated in the attached Table IV entitled "Numerical Tabulation of Activities".

**TABLE I**  
**STATUS OF STREAM POLLUTION STUDIES IN NORTH CAROLINA**  
**June 30, 1958**

River Basin	Drainage Area (Sq. Miles)	Status in Per Cent of Total State Area			
		Streams Classified & Pollution Abatement Plans Issued %	Studies Completed & Reports Underway %	Studies in Progress %	No Studies Begun %
Broad	1,450				2.77
Cape Fear	8,530		16.32		
Catawba	3,250		6.22		
Chowan	1,365	2.61			
French Broad	2,825	5.40*			
Hiwassee	650				1.24
Little Tenn.	2,190			4.19	
Lumber	3,470				6.64
Neuse	5,640		10.79		
New	760				1.46
Pasquotank	1,320		2.53		
Roanoke	7,895	15.09			
Tar	4,200			8.03	
Watauga	220				0.42
White Oak	1,340	2.56			
Yadkin	7,180	13.73			
<b>TOTALS</b>	<b>52,285</b>	<b>39.39</b>	<b>35.86</b>	<b>12.22</b>	<b>12.53</b>

\* Classifications assigned; Pollution Abatement Plan under preparation.

## TABLE II

### SPECIAL PLANT STUDIES

July 1, 1956-June 30, 1958

Name and Location	Type of Study
American & Efrid Mills, Mt. Holly, N. C.	Industrial Waste Lagoon
American Thread Co., Sevier, N.C.	Industrial Waste Lagoons
Beaunit Mills & National Weaving Co., Lowell, N.C.	Industrial Waste and Sewage Outfalls
Belmont, Town of	Sewage and Industrial Waste Outfall
Biscoe, Town of	Sewage Treatment Plant
Buck yarns, Inc., Valdese, N.C.	Industrial Waste Outfall
Candor, Town of	Sewage Treatment Plant
Carolina Southern Processing Co., Gastonia, N.C.	2 Industrial Waste Grease Removal Systems
Carthage, Town of	Sewage Treatment Plant and 2 Outfalls
Cramerton Mills, Cramerton, N.C.	Industrial Waste and 2 Sewage Outfalls
Carolina Packing Co., Smithfield, N.C.	Industrial Waste Outfall
Caswell Training School, Kinston, N.C.	Sewage Outfall
Catawba, Town of	Sewage Treatment Plant
Erwin Cotton Mills, Erwin, N.C.	Sewage and Industrial Waste Outfall
General Creosoting Co., Gulf, N.C.	Industrial Waste Lagoon
Greenville, City of	5 Sewage Outfalls
Halifax Paper Co., Roanoke Rapids, N.C.	5 Industrial Waste Outfalls
J. A. Cline Hosiery Co., Hildebran, N.C.	Industrial Waste
J. P. Stevens and Co., Wallace, N. C.	Industrial Waste Lagoon
Leaksville Woolen Mill, Mt. Holly, N.C.	Industrial Waste
Longview, Town of	Sewage Treatment Plant
Manchester Board and Paper Co., Roanoke Rapids, N.C.	Industrial Waste Outfall
Maola Dairy, New Bern, N. C.	Industrial Waste Outfall
Marion, Town of	Sewage Treatment Plant
New Bern, City of	Special Study in Lower Neuse River
New Bern Provision Co., New Bern, N.C.	2 Industrial Waste Outfalls
Newton, Town of	Hildebran and Clark Creek Sewage Treatment Plants and Clark Creek Industrial Waste Outfall
N. C. Consolidated Hide Co., Goldsboro, N.C.	Industrial Waste Outfall
Old Fort Finishing Co., Old Fort, N.C.	Industrial Waste Lagoons
Oxford, Town of	2 Sewage Treatment Plants
Riegel Paper Corp., Acme, N.C.	Industrial Waste Lagoon
Roanoke Rapids Sanitary District, Roanoke Rapids, N.C.	Sewage Outfall
Southern Dyestuff Corp., Mt. Holly, N.C.	Industrial Waste Outfall
Stanley, Town of	Sewage Treatment Plant
Star, Town of	2 Sewage Treatment Plants
Swartz Tallow Co., Durham, N.C.	2 Industrial Waste Outfalls
Valdese Mfg. Co., Valdese, N.C.	3 Industrial Waste Outfalls and closed Humidifying System
Valdese, Town of	2 Sewage Treatment Plants
Waldensian and Alba Hosiery Mills, Valdese, N. C.	Industrial Waste Outfall
Wallace Pickle Co., Wallace, N. C.	Industrial Waste Outfall
Wallace, Town of	2 Sewage Outfalls
Wellon Candy Co., Dunn, N. C.	Industrial Waste Outfall
Weldon, Town of	Sewage Outfall

# TABLE III CERTIFICATES OF APPROVAL AND PERMITS ISSUED July 1, 1956-June 30, 1958

Name and Location	Type of Project	Date Issued	Date of Expiration	Cost (*Estimated)
Aileen Mills Co., Biscoe	Industrial waste lagoon	7-2-56	7-1-66	\$ 1,500*
City of Winston-Salem	Secondary sewage and industrial waste treatment plant	7-6-56	7-1-66	3,508,040
Stanly County Rest Home	Sewage treatment plant	7-17-56	1-1-62	4,320*
Talon, Inc., Stanley	Industrial waste treatment plant	7-20-56	7-1-66	56,659
City of Sanford	Secondary sewage treatment plant	8-27-56	7-1-66	125,000
Arnold, Hoffman & Co., Inc., Charlotte	Pretreatment facilities for industrial wastes	8-31-56	7-1-60	14,595*
Almond Bros. Poultry Co., Albemarle	Secondary sewage and industrial waste treatment plant	9-17-56	7-1-66	9,000
City of Greensboro	Additions and improvements to North Buffalo Creek treatment plant	10-23-56	1-1-66	1,195,930
Surry County Board of Education, Franklin School	Sewage treatment plant	10-26-56	1-1-67	7,200*
Duke Power Co., Rowan County	Ash settling and storage basin	10-12-56	7-1-66	286,000*
Ervin Construction Co., Sharonwood Acres, Mecklenburg Co.	Sewage treatment plant	12-12-56	1-1-67	35,000*
Duke Power Co., Cliffside Steam Station, Cleveland Co.	Ash settling and storage basin	12-13-56	1-1-67	79,100*
Town of Mount Olive	Sewage treatment plant	12-31-56	1-1-67	171,232
Duke Power Co., Allen Steam Station, Gaston County	Ash settling and storage basin	1-4-57	1-1-67	100,000*
Davidson Co. Bd. of Education, Central Davidson High School	Sewage treatment plant	1-18-57	1-1-67	8,000*
Charlotte Linen Service, Charlotte	Pretreatment facilities for industrial wastes	2-7-57	7-1-60	25,000*
Duke Power Co., Allen Steam Station, Gaston Co.	Sewage treatment plant	4-23-57	7-1-67	42,000
Wilkes Co. Bd. of Education, West High School	Sewage treatment plant	2-28-57	1-1-67	4,274*
Davidson Co. Bd. of Education, Hasty-Wallburg High School	Sewage treatment plant	3-1-57	1-1-67	10,000*
Brunswick Navigation Co., Beaufort	Sewage treatment plant and fish solubles plant	3-5-57	1-1-67	100,000*
City of Gastonia	Sewage and industrial waste treatment plant	4-23-57	1-1-67	2,363,686
City of Hickory	Sewage and industrial waste treatment plant	4-25-57	7-1-67	287,620
Town of Lenoir	Sewage treatment plant	4-29-57	7-1-67	221,768
Homelite Division of Textron, Inc., Gastonia	Industrial waste treatment plant	5-28-57	7-1-62	28,275
City of Maiden	Secondary sewage and industrial waste treatment plant	5-28-57	7-1-62	33,899
City of Fayetteville	Secondary sewage and industrial waste treatment plant	6-4-57	7-1-67	141,000*
Town of Mocksville	Secondary sewage treatment plant—Past side	6-10-57	7-1-67	2,085,224
Town of Mocksville	Secondary sewage treatment plant—West side	6-25-57	7-1-67	104,000*
Town of Gibsonville	Additions and improvements to sewage treatment plant—North side	6-25-57	7-1-67	107,200*
Town of Gibsonville	Additions and improvements to sewage treatment plant—South side	6-19-57	7-1-67	88,500*
Chowan County Board of Education	Secondary sewage treatment plant	6-18-57	7-1-67	47,200*
Chowan High School, Tyrer				10,710*

TABLE III—(Continued)

Name and Location	Type of Project	Date Issued	Date of Expiration	Cost (*Estimated)
Town of Ayden	Secondary sewage treatment plant	7-3-57	7-1-67	331,791
City of Rocky Mount	Alterations and additions to sewage treatment plant	7-12-57	7-1-67	512,150
Town of Wadesboro	Secondary sewage and industrial waste treatment plant	7-29-57	7-1-67	265,299
Town of Parkton	Primary sewage treatment plant	7-29-57	7-1-67	75,000*
E. I. duPont de Nemours and Co., Brevard	Sewage treatment plant	8-2-57	7-1-62	40,000*
City of duPont de Nemours and Co., Brevard	Industrial wastes treatment plant	8-2-57	7-1-62	35,000*
Wilkes County Board of Education				
Lincoln Heights School				
Town of Littleton	Sewage treatment plant	8-2-57	7-1-67	4,000*
City of High Point	Secondary sewage treatment plant	9-19-57	7-1-67	174,332
Duke Power Co., Riverbend Steam Station,	Alterations and improvements to waste treatment plant	9-23-57	7-1-67	1,004,326
Gaston Co.				
	Ash settling and storage basin	10-4-57	1-1-68	440,000*
Shirford Mills, Granite Falls	Sewage treatment plant	10-8-57	1-1-68	6,856
Caledonia Prison Farm, Halifax County	Waste stabilization pond	11-14-57	1-1-68	49,700*
Celanese Corp., Charlotte	Pretreatment plant for industrial wastes	11-12-57	1-1-68	50,000*
Holt-Wainwright, Inc., Mecklenburg Co.	Secondary sewage treatment plant	11-25-57	1-1-68	27,350*
City of Wilson	Secondary sewage treatment plant	12-17-57	1-1-68	986,449
Town of Denton	Alterations and additions to sewage treatment plant	1-2-58	1-1-68	82,896
Town of Spring Hope	Secondary sewage treatment plant	2-12-58	1-1-68	122,791*
Naval Facility, Stumpy Point	Primary plant with chlorination	2-26-58	1-1-68	Unknown
Town of Red Springs	Secondary sewage treatment plant	4-28-58	7-1-68	156,162*
Town of Elkin	Secondary sewage treatment plant	4-29-58	1-1-68	393,000*
Town of Richlands	Secondary sewage treatment plant	5-12-58	7-1-68	110,000*
National Fiber & Cushioning Co., Roberdell	Septic tank with filter ditch	6-25-58	7-1-68	1,000*
National Fiber & Cushioning Co., Roberdell	Septic tank with nitrification line	6-26-58	7-1-68	500*
Total, 55 projects				\$16,224,534



# TABLE IV

## NUMERICAL TABULATION OF ACTIVITIES

July 1, 1956-June 30, 1958

Stream Study Section	
River Basins Completed	4
Stream Sampling Station Sampled	950
Stream Samples Collected and Analyzed	4,397
Stream Flow Determinations Made	1,757
Analytical Determinations Made in Field or in Mobile Laboratories	36,143
Analytical Determinations Made by State Laboratory of Hygiene	8,224
Special Plant Studies Conducted	142
Special and Composite Samples Collected and Analyzed	987
Plant Flow Determinations Made	12,814
Analytical Determinations Made in Field or in Mobile Laboratories	57,276
Analytical Determinations Made by State Laboratory of Hygiene	6,477
Pollution Source and Water Use Surveys (Basins Studied)	4
Field Survey Interviews	433
Semi-Public & Public Water Supplies Investigated	35
Semi-Public & Public Sewerage Systems Investigated	80
Industries* (Water Supply and Waste Disposal Systems)	90
Prison Camps Investigated (Water Supply and Sewerage Systems)	14
Public Schools Investigated (Water Supply and Sewerage Systems)	131
Federal Installations Investigated (Water Supply and Sewerage Systems)	4
Camps and Bathing Places Investigated (Water Supply and Sewerage Systems)	54
Stream Sampling Stations Established	555
Services Rendered to Public & Private Agencies	365
Pollution Control Section	
Municipal and Industrial Waste Disposal Facilities Investigated	691
Sewage and Waste Treatment Plant Sites Examined and Approved	33
Special Investigations of Sewage and Waste Disposal Problems	15
Special Assistance Given in Connection with Industrial Plant Sites	15
Sewage and Ind. Waste Treatment Works Plans and Reports Examined	173
Certificates of Approval Issued for Pollution Abatement Works	46
Permits Issued for Pollution Abatement Projects	9
Temporary Permits Issued for Continued Discharge of Waste	14
Tax Exemption Certificates Issued for Completed Industrial Projects	6
Applications for Federal Grants Assigned Priorities	62
Applications for Federal Grants Approved and Processed	25
Time Schedules Approved	4
Meetings Attended (Technical Organizations—Town Boards, etc.)	117
Special Conferences with Engineers, City and County Officials	899
Special Laboratory Sampling Activities:	
Samples Collected and Analyzed	2,875
Analytical Determinations Made	6,202
* Investigated	
State Stream Sanitation Committee	
Regular Meetings Held	9
Special Meetings Held	3
Public Hearings Conducted	3
Informal Hearings Conducted	3
Pollution Survey Reports Approved	2
River Basins Classified	2
Comprehensive Pollution Plans Approved	1
Rules of Procedure Adopted	2
Documents of Approval Confirmed	76

\* A full chronological report was included in Biennial Reports 1877-1952 but since then only developments for the single biennium was included.

## PUBLIC HEALTH CHRONOLGY—1952-1958 \*

1952—On June 1, 1952, the Personnel Office established specifications for several new programs, including Accident Prevention, Stream Sanitation and Communicable Disease Control. Dr. Charles M. Cameron, Jr., upon completing one year of post-graduate work at the University of North Carolina, School of Public Health, became Chief of the Accident Prevention Section. Dr. Hamilton made a progress report on the Medical-Public Health Library. He also reported on reclassification of health department employees by the Personnel Council.

1953—On May 7 the State Health Officer was given the Lasker Award by the Planned Parenthood Association of America. A similar award was previously awarded to Dr. Cooper. During the year, 43 clinicians attended the refresher course in Maternal and Child Health at Bowman-Gray; 25 hospital nurses and 12 public health nurses were given courses three and four weeks at Duke. On July 1, 1953 Dr. C. B. Kendall became Chief of the Crippled Children's Section succeeding Dr. Myron C. Rudolph who had died. During the year an assistant to the State Consultant on Physical Therapy was added for four months during the polio season with support from the National Foundation for Infantile Paralysis. On April 1, the position of Chief of the Communicable Disease Control Section was filled. The year also marked intensification of work by the Veterinary Public Health Section, including a campaign against rabies, anthrax, psittacosis and leptospirosis. The mass survey by the Tuberculosis Control Section was carried forward with great vigor. The Venereal Disease Control program showed favorable progress during the year. Activities of the State Laboratory of Hygiene continued to expand and cancer cytology services were somewhat increased. In spite of the marked reduction in Federal funds for county health work the program was kept on an even keel by increases in county funds under the directorship of Dr. C. C. Applewhite. The Public Health Education Section continued its activities in schools, health departments and other organizations. Work of the Mental Health Section continued to emphasize services through local health departments. During the year, rheumatic and heart disease programs were initiated at Bowman-Gray and at Memorial Hospital in Chapel Hill. A plan for speech and hearing therapy was developed during the year. Two new cancer centers were opened—a detection center at Lincoln Hospital in Durham and a detection and diagnostic center in Rutherfordton. The Heart Section gave a three-day refresher course to thirty general practitioners at Bowman-Gray.

1954—Following the 1954 Conjoint Session of the State Board of Health and the State Medical Society the health department was moved from its old building to its new million dollar headquarters on Caswell Square. Work of sending out public health literature and information continued to grow during the year. On June 1, the Medical-Public Health Library was opened in the Laboratory building. John M. Gibson, formerly with the Alabama State Health Department, is in charge. Local appropriations for public health work continued to increase, giving evidence of the growing

interest in public health activities throughout the State. During the year, Dr. Robert E. Coker, Jr., resigned as Assistant Director of the Local Health Division and was replaced by Dr. B. M. Drake. Dr. John A. Googins, commissioned officer of the United States Public Health Service, was assigned to the Division for a year's experience, as of July 1. The year 1954 also saw progress and new ventures in the mental health section activities. The first state-wide conference for mental health clinic personnel was held in Raleigh early in the year and in the Fall a second such conference also was held in the Capital City. During the year, medical consultant services in Venereal Disease Control was extended on an increased basis to local health departments, private physicians, hospitals and medical officers at the several military installations in North Carolina. The Public Health Statistics Section continued to expand its scope of usefulness. During the year the Tuberculosis Control Section continued its expanded activities and mass x-ray surveys were conducted in 22 communities. Two hundred fifty-one thousand seven hundred sixty-two persons were thus tested which was an increase of 1,210 over the preceding year. In 1954, the activities of the Veterinary Public Health Section continued promotion of an adequate rabies control program. Boards of County Commissioners in 20 counties appointed dog wardens and constructed sanitary dog pounds. The number of school children inspected by public health dentists during 1954 numbered 106, 780 and 40,832 underprivileged children received dental corrections. The Wake County Detection Center began operations in Rex Hospital on August 5.

1955—During the year 1955, the work of the Department continued to move steadily forward. During the year the North Carolina Hospital Association and the State Board of Health continued to sponsor institutes for food service managers in small hospitals. The University of North Carolina Institute had an attendance of 42, showing keen interest in this undertaking. A new public health nutrition internship was started in October with a graduate in Home Economics from Woman's College a major in nutrition as the first intern—Miss Mary Lee Brown. The Heart Section gave its first refresher course at Bowman-Gray in 1952 with 28 general practitioners. In June, 1955 the number had increased to 34 general practitioners.

1956—During the year Central Files received and filed 209,462 records and made over 36,000 searches for material. The Medical-Public Health Library added 229 books to the Library, reported 3,704 visits and loans of 1,682 books. Federal money appropriated for the purchase of poliomyelitis vaccine made it possible for the State Board of Health to distribute enough for 1,428,000 inoculations. In the field of Maternal and Child Health there were 4,609 clinic sessions which rendered assistance to 34,000 maternity cases and 53,000 infants and pre-school children. The year 1956 was the 40th year of service which the State Laboratory of Hygiene has rendered to the people of North Carolina.

1957—1957 was marked by a bond burning of the last of \$160,000 self-liquidating bonds which were retired on July 1. The Conjoint Session of the State Board of Health and the State Medical Society was held in

Asheville. Much progress was shown in the work of the Division of Epidemiology, especially in the reduction of reported cases of infectious syphilis during the past ten-year period was from 7,313 in 1948 to 5,440 in 1957. The polio vaccination program has resulted in our having only 229 cases in 1957, the lowest since 1949 when the same number was reported following an epidemic year in 1948 with 2,516 cases reported. During 1957 the Public Health Statistics Section rendered services to several committees of the Medical Society of the State of North Carolina in personnel, tabulating, materials, and supplies.

1958—The early months of 1958 were marked by several events of especial significance to public health. On May 7 Dr. G. Grady Dixon of Ayden died in Hickory on his way home from Asheville after that morning presiding over a Board session and the 1958 Conjoint Session of the State Board of Health and the State Medical Society. Ben Eaton, Jr. filled a new position in April when he became Director of Administrative Services. Dr. R. D. Higgins was appointed in February to succeed Dr. C. C. Applewhite as Director of the Division of Local Health. Dr. Applewhite retired to live in Jackson, Mississippi.









This book circulates for a 2-week period and is due on the last date stamped below. It must be brought to the library to be renewed.

--	--	--



H00111220 7

WA  
1  
N862b  
1956  
-58

WA  
1      Biennial report,  
N862b      37th, 1956-58  
1956  
-58

DATE	ISSUED TO

